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4.

MEDICAL DISSERTATIONS

READ AT THE ANNUAL MEETINGS

OF THE

MASSACHUSETTS MEDICAL SOCIETY.

AND OTHER

MEDICAL PAPERS,

BY FELLOWS OF THE SOCIETY.

Published by the Society.

VOLUME FOURTH.

BOSTON:

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1829.

PREFACE.

For a considerable number of years past, the publications of the Massachusetts Medical Society have been limited to the Discourse read at the annual meetings. The attention of the society has been chiefly directed to the other objects of its institution, in which are concerned, the respectability and standing of the profession, and its influence upon the welfare of the community. In these respects the society has not been idle, nor inefficient. The standard of medical education has been raised, and the intercourse among the members of the profession has been improved, by an elevation of professional character. But these objects may now be regarded as accomplished. It only remains for the Society and its Fellows to continue the course which has been pursued for some years past, to secure to the profession in this Commonwealth all the respect and confidence that can be desired, and to reciprocate that confidence in a full measure of usefulness to the community.

The Counsellors have now adopted measures which they hope will enable them to publish a half volume yearly. If the Fellows of the Society will prepare and transmit to them suitable articles, on the various subjects of medical science and practice, they confidently trust that their publication will be a benefit to the public, an honor to the society, and the best means by which the several contributors can make known the results of their observations. At the same time, the compensation which the society offers for such communications as are approved will be some remuneration for the labor employed in preparing them. It is proposed with the next volume to commence a new series; and it rests with the Fellows of the Society to determine whether it shall exhibit a more active and zealous regard for the advancement of professional knowledge among us, than has been shewn by our former volumes.

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MEDICAL DISSERTATIONS.

ARTICLE I.

A

DISSERTATION

ON

Medical Education,

AND

ON THE MEDICAL PROFESSION.

BY JOHN G. COFFIN, M. D.
Fellow of the Massachusetts Medical Society.

Read at the annual meeting, June 5, 1822.

GENTLEMEN,

IN conformity to the duty assigned me, I now proceed to submit to your consideration some remarks on Medical Education, and on the Medical Profession.

The existence of physicians, nominal or real, at all periods of time, and in every condition of society, where men have felt their natural wants, and attempted to supply them, I receive as sufficient evidence that the profession of medicine is founded in the necessities of mankind.

Since then we must have, what we cannot live without, it is well to make good, what is already indispensable.

Having the alleviation of one of our chief wants in view, the art of medicine is, even at the present moment, of the most direct and extensive utility, and may every day become more and more so. And if, in all ages of the world, we have seen this utility called in question by men of sense and discernment, we must ascribe this solely to the errors of its language, the vagueness of its theories, and the unphilosophical character of the great majority of its books and plans of instruction.

The business of promoting and securing health, merits the most serious attention, not only of physicians, but of legislators and the people; and the place assigned it in every plan of national education should be worthy of the value of its objects. In this important work enough has already been accomplished, to encourage the friends of medical science to continue their efforts for its further advancement. Medicine has undergone many essential improvements, its general character has assumed a more philosophical and practical cast.

Physicians are returning to those forsaken fountains of knowledge, from which Hippocrates and Sydenham drew so largely. They seem to

be aware that our science cannot be benefited by closet speculations, but that experience and observation, under the control of a rigorous logic, are the only genuine sources of useful knowledge.

It is incumbent on those who cultivate medicine, to keep pace with the general progression of human attainments.

Individuals owe this not less to themselves than to the public; for such is the prevalent competition for medical distinction, so numerous are the competitors, and so ardent the race, that without considerable acquirements and persevering industry, no one can justly rely on winning the prize.

The public too, expect much of physicians, and with reason; knowing, as they do, the superior advantages of the present day. The legislators of Massachusetts especially, men who have done so much for the advancement of medical knowledge, deserve, in the first place, our acknowledgments, and in the second, all the benefits of an improvement of our art correspondent to the patronage and support which they have given it.

A physician's education may be divided into two parts, preparatory and medical.

The value of the preparatory studies and acquirements of the physician have never been

duly estimated nor sufficiently attended to in this country; and I presume the remark is applicable to every other.

Before a young man is permitted to enter on the study of medicine, he should possess a knowledge of languages, writing, the science of numbers, geography, natural history, and natural philosophy.

These are essential, and to these should be added, when circumstances will permit, history, government, poetry, drawing, and any and every branch of polite literature.

This information will enlarge the physician's intercourse with society, and open to him many new and extensive sources of knowledge. The most important language to the physician is that of the country in which he is to live and do business: and yet from the style in which many of our body write and speak, I should doubt whether this obvious idea had ever been generally adopted, or much regarded.

An accurate acquaintance with his native language should be considered, as it is, indispensable to an American physician.

Without this he can neither speak, write, nor read, with propriety; he cannot take a step without betraying the fact that he is not educated. Besides, we all know how much a faulty and inaccurate use of words has retarded the

progress of our art, by raising doubts and disputes, and thus keeping the truth out of sight.

No author will be long read who leaves his reader, half the time, doubtful of his meaning, or uncertain whether he has any at all.

I have lately seen a letter from a physician of New England, who says that though fees are low in his vicinity, his charges for some time past have amounted to fifty dollars a week; that his business consists chiefly in consulting in difficult cases, with the physicians of the neighbouring towns; and that he has restored to health, within four months, in fifteen towns, more than fifty patients, who had been given up to die by the practitioners who had previously attended them.

This fortunate son of Apollo may have somewhat magnified his cures, though I have no reason to doubt his regard for what he conceives to be truth.

He is certainly in good fashion and extensive practice at present, and yet in his communications he is constantly violating every rule of syntax and orthography, and mistaking the common import of common words. This man may die rich, if he should not survive his present currency, but can never be respected while he lives by his more enlightened brethren, nor leave

behind him any thing for the admiration of posterity.*

The Latin should be regarded as essential to the profession: every physician should be able to translate a Latin author with accuracy and ease. I have many times felt the awkward and embarrassed situation in which every physician is liable to be placed who does not possess a good knowledge of this language, and I mention the fact for the advantage and relief of those students and junior practitioners who may yet have an opportunity of supplying this deficiency wherever it exists. With respect to the Greek, physicians should be able to read it, and to understand the

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* Since this discourse was read, several persons have inconsiderately asked, Who is this? as if the question could be answered.

I have quoted an instance to illustrate a case and support an argument; but nothing has been further from my motive, than a disposition to wound the feelings of an individual, who, for aught I know, is as much, or more, unfortunate than blameable. If ever the man alluded to should read this, I doubt not that he will do me justice, for I presume he will agree with me, that nothing is so valuable as truth to those who are disposed, and sufficiently honest and magnanimous, to make the right use of it. Every one who estimates truth as highly as it deserves to be estimated, will be inclined to make not only some, but many sacrifices of ignorance, prejudice, pride, and indolence, in favour of its promotion.

precise meaning of every word from which any medical term is derived.

Little more than this has been realized or can be expected from this noble tongue, till it shall be regarded and studied as a living language.—An acquaintance with the existing language of the Greeks is the best introduction to a knowledge of their ancient authors.

Not more than two in a hundred of all those who have taken the degree of master of arts in our republic, have ever acquired or retained enough of Greek to render it either pleasant or useful. It must be an error in education, to spend much time and labour to acquire a knowledge of what is useless when known, and no less a defect to learn imperfectly what should be thoroughly understood.

When our instructers in this language shall be learned Greeks, acquainted both with our language and their own, then the Greek may indeed become a language at once entertaining in the acquirement, and profitable in possession.

Science may indeed be translated, but taste and talent cannot. The spirit of original composition is too volatile to be transfused; to catch it we must ascend to the fountain head. The study of languages, beside other good effects, is one of the best exercises in forming a habit of

close and diligent application, which is the first and greatest lesson of life.

When an acquaintance with the French, German, or Italian language, or all of them, can be added to a knowledge of those already mentioned, they will add much to the resources, enjoyments, and success of their possessor. He who learns a foreign language, rich in literary productions, is surprised to find a new world opening to his view. He seems to have been previously shut up within a narrow circle of ideas, when suddenly the dominion of his mind begins to enlarge almost beyond limit.

He finds himself delighted in partaking of treasures of whose very existence he was previously ignorant.

* The writing of a fair and legible hand is a material part of a physician's preliminary education. The advantages of it have not been sufficiently appreciated; but the inconveniences of writing a bad hand are more obvious, and extend their influence into the business of society. Dr. Fuller, in pathetic terms, laments that he lost all the notes on diseases which he had committed to paper, by writing them in so small a hand, that he was unable to read them when he grew old.

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* Dr. Rush, Introductory Lectures.

Dr. Haller makes an apology for having mispelled the names of many of the authors whose works he had abridged, by declaring that his hand writing was so much impaired by age, that neither he, nor his amanuensis was able to read, three months afterward, what he had written. I make no allowance, says Dr. Rush, for the supposed influence of age on the muscles of the doctor's fingers, for I have constantly observed, that a fair legible hand, when acquired early in life, is rarely impaired by age, seldom even by those slight degrees of tremor which sometimes affect the hand in the decline of life.

When in France, Dr. Franklin lamented that he received many letters, containing numerous important inquiries relative to the state of America, from persons disposed to emigrate to our country, which he was unable to answer, because he could not decipher the names which were subscribed to them.

But the writing of a bad hand, which is an inconvenience only in some of the pursuits of men, is often a serious evil in the profession of medicine.

A patient, in the city of London, was killed by an apothecary, who mistook a prescription of nitrum antimoniale, for vitrum antimonii; and I have heard of aqua fortis being added to a julep, instead of aqua fontana or common water, in

consequence of the two prescriptions having been written in abbreviated Latin by a careless hand.

Considering how often we are obliged to convey our advice to patients by letters, and how many medicines we prescribe in words not in common use; considering likewise how injurious a mistake, in a single word or letter, or even the neglect of our prescriptions, from an inability to read them, may be, in its consequences, to the health or life of a patient;—the writing of a fair and legible hand should be regarded as part, not only of the learning, but also of the morality of a physician.

The most material part of geography to the physician, is that which includes the history of climates, weather, soils, and the local relations of different countries and places to rivers, seas, lakes, bogs, and mountains.

While he is receiving lessons on the physical history of the globe, he should read such books of travels as contain accounts of the food, medicines, dresses, employments, manners, amusements, and religions of different nations: all of which will be found to be intimately connected with the causes and cure of diseases.

When the medical topography of the different districts and towns in various countries shall be known, the physician will know better than he now does, where to send such of his patients

as need travelling, and a better atmosphere and residence for their restoration. When this very desirable information shall be diffused throughout our own various and immense regions, our friends of the south, sick or well, will be the better enabled to select a suitable summer residence in the north, and the contrary. As our art is founded in a knowledge of nature, the more the physician knows of natural history and natural philosophy, the better will he be able to prevent and to cure diseases.

Every physician should understand arithmetic, and enough of the plainer and more practical parts of the mathematics to enable him to follow the calculations and demonstrations of a lecturer or an author, and to transact the common business of life.

In selecting a son for the medical profession, he only should be taken who has a firm body, and a good understanding; the latter is necessary to enable him to acquire a knowledge of his art, and the former, to render him useful in its application.

To give any child the best constitution of which he is naturally susceptible, the primary object of his parents, for the first ten years of his life, should be his physical education. I do not mean that his mind is to be neglected during this period, but that his intellectual powers are

to be so cultivated, as not to interfere with the more important concern of exercising, unfolding, and perfecting the corporeal system.

A vast deal of information, however, and of precious information too, may be obtained while we are thus laying the foundation of good health and spirits for the remainder of life. I allude to a knowledge of ourselves, of our personal energies and resources, and of the properties of the material world which surrounds us, and in which we are to live.

To these acquirements may be added the rudiments of literature, provided the first lessons are short and easy; rather amusements than appalling and paralyzing labour and restriction. To those parents who have thought only of the minds of their children, this management may seem too great a sacrifice of the nobler endowments of intellect, to the inferior mechanism of the body. The reply to this is, that no young person of any age, can devote all his hours to study; every day affords sufficient time for all the purposes of physical, intellectual, and moral discipline and instruction, and that these essential branches of a perfect system of education, are so intimately connected, that no one or two of them can be successfully conducted without the other.

And I apprehend that our higher seminaries of learning *will never deserve nor possess the confi-*

dence of the public, or be able to secure the literary and moral reputation of the individuals intrusted to their care, till these material departments of a good and safe education shall be distinctly perceived, admitted, and provided for.

Such are the relations and reciprocal influence of the various human arts and sciences, that no one of them can be well cultivated alone; they must all, in some good degree, advance or decline together. Medicine, for example, will always be affected favourably or otherwise by the prevailing systems of general education, hence my apology, if any be required, for noticing a subject, which at first view, might seem foreign from the purposes of this discourse. We have at present but few schools which might not be improved in the selection of things to be taught, and in the mode and order of teaching them.

When the selection shall be good, no time will be lost on what is superfluous, and this will leave time enough to learn well what is worth learning at all; and when the mode of conveying knowledge to the human mind shall be perfected, much time and labour will be saved by this improvement; and when the order of the pupil's studies is the best, those subjects will immediately succeed each other which are most nearly related, so that what precedes, shall lead to, explain and facilitate what follows.

When schools shall be thus organized and conducted, they will give the learner precisely what he wants and no more, and this in the shortest time and best manner.

But thus to accommodate individuals, it is obvious that there must be schools of different character and objects, or that particular persons must take parts only of any entire system of instruction. "A classical education is a fine preparation for acting in society with complacence, propriety, and dignity; for sound learning and correct taste are nearly connected with pure morals. Independently of all principle, they give a delicacy and sensibility to the mind, very favourable to virtue; and while they are, in themselves, a prominent source of happiness to the individual, and place him above the necessity of seeking it from sources less pure, they, at the same time, become the means of diffusing happiness around him."*

A wise and able magistrate, a learned professor of the law, a humane and benevolent physician, no less than an enlightened teacher of religion, contribute to the happiness of posterity, as well as to that of the age in which they live. By their knowledge, they mitigate the evils of their cotemporaries; by their example, they mend the characters of those with whom they associate;

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* Dr. Bard.

and, by their precepts, they sow the seeds of excellence which may bless and exalt their country to future generations.

Before we enter on a consideration of the proper mode of studying medicine, it is well to premise that this is a comprehensive and an intricate science, founded on numberless facts which have been discovered through the successive periods of distant ages, and which have been collected and preserved in the writings of almost innumerable authors, of different nations and tongues.

It has necessarily been coloured and disfigured by the credulity of some; rejected, lost, and again revived, by the cautious discrimination of others; elucidated by new discoveries, and confirmed by later experience.

Among ignorant and barbarous nations, this science has ever been connected with religion, involved in mystery, and disfigured by superstition. By these errors the progress of medical science, though not absolutely arrested, was greatly checked; till through the important discovery of the circulation of the blood by Harvey, and the introduction of a strict philosophy by Bacon, in which opinion was made to give place to observation, and a patient investigation of facts was substituted for the quibbles of sophistry, the science of medicine became again placed on its proper basis—nature, observation, and experience.

From this moment, anatomy, chemistry, natural history, and natural philosophy, which, though they had long been in the train of medicine, had rather followed than directed her researches, were impressed into her service, and made to take the lead in a medical education: nor till he has made considerable progress in these, can the student in medicine be properly qualified even to begin what is the great object of his pursuit—the study of diseases, and their cure.

Supposing a young gentleman to be duly prepared to enter on the study of medicine, we may now inquire, how this pursuit can best be prosecuted.

On this subject I could not better, nor so well, express my own views and impressions as to adopt the sentiments of the late excellent Dr. Bard, of New York, as conveyed in his own pure and beautiful language. "In a profession so various, so intricate, and so extensive, it is easy to see that the scholar can make but little progress by private study. Lost and bewildered in the multiplicity of objects, and in the contrariety of conflicting opinions, he absolutely requires the hand of a master to lead him into the plainest and most direct path; to remove, as he goes along, the obstacles which may obstruct his progress, and to point out such objects as are most worthy of his observation.

"Nor are there many individuals who are qualified to teach all the preliminary branches; each of them is sufficiently extensive to employ the time, and occupy the attention of a man of no common attainments. Besides, chemistry requires a laboratory; botany, a garden; and anatomy, a theatre and subjects; and, above all, the nature of diseases and the practice of medicine, cannot be taught but in a public hospital.

"Much, therefore, as oral instruction, and the voice of a professor are to be preferred to the silent investigations of the closet, still more is required. The cooperation of several teachers, and the facilities of a public institution, and that too in a large city, where only, in this country at least, anatomy and the practice of medicine can be properly taught. In both these branches, the student must not only receive the instructions of his teacher; must not only reflect on and digest what he hears and reads; but he must see, and handle, and examine for himself.

"In anatomy, the subject properly prepared, must be placed before him; without this, the most accurate description, even when aided by the finest plates and drawings, will be found wholly inadequate to convey correct ideas, or to make durable impressions on his mind.

"The parts must be unfolded by the knife; they must be distended by injections; and what-

ever is uninteresting and obscures their intimate structure, must be removed; or the student will look with a vacant eye on what to him will appear an unformed mass: and if possible, after having been taught what to look for, and what is most worthy his observation, he should handle the knife and syringe for himself. He should learn how to prepare the subject for the instruction of others.

"In chemistry, the science of nature, by which we are admitted into her confidence, are taught her secrets, and learn her processes; but slow progress can be made without a teacher, aided too, by a large and expensive apparatus.

"For though by the introduction of a more correct language, and a more liberal philosophy, all the jargon and mystery by which the old chemists clothed their communications, and concealed their art, have been done away; still the multiplicity of facts, the delicacy of processes, and the variety of apparatus, are such, that practice only can give that dexterity which is necessary to insure success; and to acquire this dexterity, unassisted, would require more time, and be accompanied by greater expense, than most students of medicine could well afford.

"In botany and natural history, the number of objects to be examined, and with which it is necessary to become acquainted, is so great, that

without a garden and museum, without arrangement and system, no correct or valuable knowledge can be acquired.

"And, lastly, in the study of diseases, and in the practice of medicine, no histories, however accurate, no reasoning, however just, can convey the knowledge necessary for their treatment and cure.

"The student must hear, and see, and feel for himself. The hue of the complexion, the feel of the skin, the lustre or langour of the eye, the throbbing of the pulse and the palpitations of the heart, the quickness and ease of respiration, and the tone and tremor of the voice, the confidence of hope, and the despondence of fear, as they are expressed in the countenance, baffle all description; and yet all and each of these convey important and necessary information.

"Where can these be learnt but at the bedside of the sick? and where can a young man, who cannot be admitted into the privacies of families, or the chambers of women, acquire this necessary information, but in a public hospital, which is intended not only as an asylum to relieve the complicated misery of poverty and sickness, but as a school of medicine, to contribute to the public welfare; and as such, deserves and receives the patronage of government, even more than as a mere charitable institution.

"But beside these considerations, and the impossibility of teaching medicine in private, there are many advantages which attend public institutions in this, as well as in most other sciences: one is, that from a division of the subject, a more enlarged, comprehensive, and systematic view of the whole will be taken; its connexion with, and dependence on, other branches of learning, will be more clearly pointed out; and general laws and fundamental principles will be better taught.

"The student learns what are the proper objects of his inquiry at each stage, and as he goes along, is instructed how to make a proper use of his previous acquirements and experience.

"Besides, young men, engaged in the same studies, mutually assist each other. Emulation, which warms and engages the passions on the side of whatever is excellent, cannot be excited without rivals. Without emulation in the scholar, instruction will proceed but with a languid pace, and excellence is never attained. Nor is emulation confined to the scholar. The emoluments of the teacher depend on his fame, and both on his talents and industry.

"Stimulated, therefore, by his interest, and spurred on by his ambition, he will make every exertion to recommend his lectures, which he knows are to be brought to the ordeal of a nice and critical examination. Among his hearers there

will always be a number of the elder students, very able to judge of his merits, and very willing to discover his errors. Such a system of education cannot long be conducted in a slovenly or incompetent manner; negligence will sit very uneasily, and incompetence cannot long keep her seat in a professor's chair.

"Nor is it by exciting their emulation only, that young men, assembled in a public school, are of use to each other; they mutually instruct one another by their daily conversation, and in societies formed for the purpose of discussing professional opinions, on which they often exercise a degree of attention and acuteness which serves as no inadequate test of their truth and usefulness; and this further serves to explain them to their understandings, and to fix them in their memories, with more clearness and precision than hearing them many times repeated from their professors.

"Indolence is the greatest enemy to learning, but indolence is a vice bred and nourished in solitude, and can hardly exist at a public school, but in minds of so heavy a mould as to be incapable of culture.

"But dissipation is the error into which a young man of lively disposition and quick parts, especially on first coming from the retirement of the country into a large and luxurious city, is most

apt to fall; and unless he possesses some strength of mind, the variety of new scenes, the novelty of surrounding objects, and the allurements of pleasure, too frequently seize on his imagination, occupy his thoughts, waste his time and resources, blast his own prospects, and disappoint the hopes and expectations of his friends. Against this, I have nothing to urge but the common, though strong and irresistible argument, of duty and necessity; nor any remedy to propose, but that of wholesome employment.

"It is the commencement of his career which the student will find to be the most dangerous; if he postpones his indulgence for a short time, even for a few weeks, till he is fairly engaged in his studies, full occupation will at least lessen the temptation; and when once he sees how absolutely incompatible dissipation and pleasure are with duty and improvement, he will probably find himself able to resist their attractions, or, I should rather hope, they will have no attractions for him. On the other hand, to continue in retirement, and there to labour without plan or design, may indeed accumulate a confused mass of materials; but beauty, order, and proportion, are the result of skill;—he who would build a palace must employ an architect.

"So the student of medicine who trusts to his own unassisted researches, or is directed by an in-

adequate guide, may load his memory and confound his judgment, by a great number of facts, and a medley of opinions, which will only lead him into error, and end at last in darkness and confusion.

"But he who is properly initiated into the rudiments of his art, pursues his improvement in the light of day; every step he takes brings him nearer to his proposed end; every fact and opinion he learns, takes its proper place; and knowledge, clear, precise, and accurate knowledge, is the happy result."*

Various medical schools differ in the number of their professors, the variety and extent of their lectures, and in other particulars, so that some one must be preferable to others. The misfortune of ours is, that they are too numerous, so that no one obtains but a portion of that patronage and support which numbers and wealth only can give, but which are necessary to enable any one seminary to furnish all the means of instruction. A French physician and writer of eminence, wishing to perfect the existing plan of medical education in his country, has recently proposed that there be in Paris but one school for the teaching of medicine.

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* See a Discourse on Medical Education, by Samuel Bard, M. D. &c. &c. New York, 1819.

That this institution shall have twenty professors, and that these should give annually eighteen courses of lectures on the following subjects;

1st course. Descriptive anatomy and general pathology.
2d. Physiology. 3d. External nosography.
4th and 5th. Internal nosography, and hygiéne.
6th. General semeiology.
7th. General therapeutics.
8th. Surgical operations, bandages and apparatus, and attendance on lying-in women.
9th. Materia medica.
10th and 11th. Clinical surgery.
12th and 13th. Clinical medicine.
14th. Legal medicine, and the history of medicine.
15th. Medical chemistry and physics.
16th. Pharmacy. 17th. Natural history.
18th. Medical methodology and bibliography.

After studying three years, attending these lectures, and sustaining three examinations, in the French or Latin language, to the acceptance of his teachers, the pupil becomes a candidate for the degree of bachelor of medicine.

After the fourth year passed in the same way, and two more examinations, he may obtain the degree of doctor of medicine. And after devoting his fifth year to a revision and correction of all his studies, and improving himself by attending

on the practice of the best hospitals, he is permitted to set up the practice of his profession.

All the phenomena of nature in the inorganic, the vegetable, and animal kingdoms; all the capacities and agency of men, are united by an unbroken chain, which forms of these one universal system—an encyclopedical whole; there is then but one science vast as nature itself.

But our minds are limited, and science is immense, and man has been obliged, in order to bring this within his feeble intelligence, to consider in their relations those phenomena and operations which have between them the closest connexion; and he has accordingly established particular doctrines or sciences which are separated by limits purely conventional.

But though the divisions of the sciences are artificial, the order in which they should be studied is not arbitrary. The success of our labours and researches will, in a great measure, depend on the choice of a good method; and that is the best which is at once the most convenient to follow, and the best suited to fix in the memory the facts we purpose to retain there.

The student left to himself has not the discernment necessary to enable him to decide from what point he should start, or in what direction he should steer his course. At first he is disposed to try every thing, that he may know what

is best, and is liable to lose much time in a painful and unprofitable fluctuation. He enters, for instance, a medical library, and sees a multitude of books, which would cost him twenty years to read. The impossibility of doing this, with other requirements, may discourage him, and lead him to abandon a course which, if rightly pursued, might prove satisfactory and successful.

In several German universities, a chair has been wisely instituted for lectures on medical methodology and bibliography, for the purpose of conducting pupils through an extended labyrinth of means and objects.

In regard to books, the professor does not content himself by giving merely the titles, dates, and best editions of the authors to be read, but he gives his judgment of the peculiar merit of each, and a sound criticism and analysis of every volume to be studied.

Experience is said to have proved decisively the utility of this instruction. If on this system much is to be done, we must take time to do it.

"The great error in our plan of education is, that we are too much in a hurry, that our young men are ushered into the world, and commence the practice of their professions at a period so early, and after a preparation so slight, that very few have acquired the prudence or the knowledge requisite to govern their conduct in either.

"Hence arise the errors and failure of too many, and our general, and I am afraid I may say, too just, reputation for superficial attainments. Could we keep our youth at school till sixteen at least, at college till twenty, and in a counting house or at the study of the professions till twenty-four or twenty-five years of age, they would be more generally successful in life; we should have fewer failures in trade, and more respectability and eminence in our professional men."

Our medical students are frequently licensed to practise after three years of study; but I am persuaded that no physician of learning and experience, has ever thought this a sufficient period of preparation, nor ever admitted it to be such, except from a sort of necessity, arising from the circumstances of a thin population and a new country. But whether we are not already too far advanced in population, in wealth, and in civilization, any longer to tolerate this defect in our plans of medical instruction, I would respectfully submit to our legislators and the medical public, as well entitled to their fullest deliberation.

An excellent provision exists in the state of New York, requiring four years of pupilage before an ordinary license to practise can be obtained.

In England, till lately, the student of medicine or surgery served an apprenticeship of seven

years to learn his art; but this period is too long, and was often so passed as to afford incomparably less advantage than four years properly employed. In the university of Padua, in Italy, ninety-four courses of lectures are given in medicine, surgery, and pharmacy, and five years are devoted to a medical education. In Pavia also five years are consecrated to medicine.

Our art has been injured by an unnatural division of it into two parts, medicine and surgery, as if these two branches could be separately learnt and practised. Anciently, it was not so. For ages Hippocrates, Galen, Celsus, and others, cultivated the entire field of medicine as a whole. It was not till the year 1163, when, in Christian Europe, the practice of medicine was engrossed by the Jews and ecclesiastics, that the council of Tours prohibited the clergy from performing any operation of blood. And that church, which had united its influence with the arm of secular power, in order to degrade and limit, that they might control, the human *mind*, from this time became too sensitive and tender, to permit the shedding of human blood, even for the sacred purpose of curing disease and prolonging life.

Surgery, now driven from the seats of learning, fell into the hands of the laity, who were nearly all illiterate, and thus became barbarous in the hands of the ignorant and crafty.

The education of the physician and surgeon should be the same, excepting that the former need not perform the higher operations in surgery, nor be practically acquainted with the subsequent treatment and effects. But he should know when his patient requires the aid of surgery.

In practice, all physicians, except those in populous places, find it necessary to do the more frequent and ordinary operations of surgery. Every physician should bleed his own patients, or be present when they are bled, or employ a physician to do it for him. For before a vein is opened, and the effects of the operation are seen, who can determine how much blood, in any case, should be taken away? Mere bleeders should not be tolerated, for he who knows nothing more than how to open and close a blood vessel, can never be safely trusted to do this. Even in this day of light and advancement, I could name a surgeon, preeminent for the despatch and cleverness with which he removes a stone from the bladder, and performs every other act of operative surgery, but who is reproached, by a number of competent judges, with sometimes losing a patient, from the want of the proper subsequent treatment.

Mr. Abernethy found that many wounds which resisted all the means that the surgeon could em-

ploy, were attended with a disordered state of the digestive organs, and yielded readily when the due performance of the functions of these organs was restored; nay, that many wounds and other local diseases had no other origin than the states of health which attend irritation of the stomach and bowels.

I have never known a surgeon, capable of practising medicine, who has not been called on to prescribe ten times as a physician, for one operation in surgery.

In new countries, and in certain thinly peopled portions of every country, the same place can support but one practitioner, and he must be physician, surgeon, accoucheur, dentist, and apothecary. In populous cities indeed there are advantages which arise from a division of labour, and he may very properly confine himself to any one branch of his profession, who finds sufficient employment in it. In this way too, individuals may often become more accurate and successful, and better satisfied with themselves than they would otherwise be, and the public are better served.

In reference to this division of the healing art, some late authors have used the term *surgical diseases*, and the inaccuracy of this language should be exposed, that the language itself may be discarded.

A disease may with equal propriety be called *medical* as surgical; surgery being merely a branch of therapeutics. Medicine and surgery, in their application, both equally refer to the means of curing diseases, and not at all to the causes or nature of any particular class of morbid affections.

Blistering, venesection, and the application of leeches, may all, I suppose, be regarded as surgical remedies, and yet, from the use of these remedies, who could divine the character of the disease for whose cure they might be directed?

From the day the student begins to read anatomy, he should begin to see plates, preparations, and subjects. From the day he begins to study pathology, he should begin to inspect patients. From the day he begins to investigate the treatment of diseases, he should witness the operations of remedies, and so of other particulars.

Thus the testimony of the senses will come in aid of the understanding.

Thus books and patients will reciprocally render each other more intelligible, interesting, and instructive; and thus the difficulties and intricacies of the science will be the sooner perceived and surmounted. Thus the art of discovering and interpreting the phenomena of diseases will be acquired, and the evidence of curative power detected.

Thus the pupil will, in the shortest and best manner, become prepared to understand the fallacies, and to measure the shallowness of any future visionary and theorist, who shall presume to inform us, that all diseases, and that all remedies, are to be divided into two classes each; each class of the same character, and differing only in degree!

From the day the student becomes practitioner, he should, as opportunities permit, begin to educate himself anew; he should review and scrutinize all that he has received from his books and instructers as well founded, for he has taken much on trust.

He must prove and retain what is true, and reject what is false or useless.

He must do all this by reading, observing, experimenting, and recording.

In his reading, he must recollect that the head, like the stomach, is benefited only by what it can relish, digest, and appropriate.

He must read every day, but not too much in any day. He must read nothing which is not worth his undivided and concentrated attention, and then he will read with interest and effect. By observation, I mean the habit of attending to every thing we do, and to all that we see.

By keeping records, I refer to the good effects of putting on paper, not only those important

cases and rare occurrences, which occasionally happen, but also those more numerous and common events, and insulated facts, which, when preserved and arranged, are in their amount of great value, but which, without being recorded, are apt to escape us, till irrecoverably lost.

From the want of this practice, I have sometimes sustained a loss which may be common to others.

In some difficult case, some cutaneous disease, for example, after trying the usual remedies without success, I have fortunately hit on some extemporaneous prescription, which has done all I could wish. In six months after, I have been desired to give the same prescription, but no copy of it has been kept, the recipe in the meantime is lost, and with it the recollection of its contents; and this loss cannot always be supplied by any future effort.

There is an agent in society, standing as a medium of communication between the physician and his patient, whose occupation is too important to be any longer trusted to unskilful hands; I mean the apothecary—whose duty it is to prepare, issue, and occasionally to administer medicines agreeably to the physician's prescriptions. What should be the qualifications of an individual who wishes to become an apothecary? He should in the first place, possess a knowledge of the English and Latin languages; then of the

materia medica and pharmacy, including chemistry, and a competent acquaintance with botany, mineralogy, and zoology. The disastrous consequences of permitting unqualified persons to compound and sell medicines, must be too obvious to need any further notice.

No one among us who has been disposed to assume the office of an apothecary, has yet been restrained, by any law of the state, from exercising its functions.

But this is not all, the catalogue of evils is not yet fully unfolded.

The mere druggist has been allowed to intrench on the the province of the physician.

The spectacle is at once ludicrous and deplorable to witness what is daily practised in many of our apothecaries' shops. A man comes in, and addressing himself to one of the establishment, says, Doctor, I'm sick, or my child has a certain complaint, and I wish you to give me something to cure it.

The *opifer per orbem*,* willing to act in conformity to the profession and title thus gratuitously conferred, and too prompt in his zeal to serve his customer, to admit of any scruples or delay in a choice of means, immediately puts up the de-

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* Inventum medicina meum est; opiferque per orbem
Dicor, et herbarum subjecta potentia nobis.

Ovid. *Met.*

sired remedy; and here the matter between the buyer and seller commonly ends; but not always so satisfactorily between the patient and the remedy. But of consequences we are not often informed, for if the child is injured or deprived of life, the parent, on reflection, is likely to find the fault to be quite as much his own, as his doctor's, and instead of honestly admonishing his neighbour to avoid the error into which he had fallen, keeps his own secret, and thus permits the mischief to go on.

Supposing a physician to be well educated, how is he to become reputable and useful in his profession? In the first place, by consecrating his time and talents to the sick. All other business and amusements must give place to a steady and undeviating discharge of his professional duties.

In his intercourse with the sick, he should be patient, gentle, kind, and attentive, making all due allowance for the weakness and imperfections of poor human nature, especially when oppressed by disease, and tormented by increased sensibility and morbid irritation.

But as all human obligations are mutual, the physician is entitled to receive from his patients a compliance with his directions and efforts to serve them.

Whenever therefore from obstinacy, prejudice, obedience to the officious interference of

friends, the opposing efforts of obtrusive meddlers, or any other cause, the patient by his misconduct, puts it out of the power of his medical attendant to serve him, the physician should withdraw. For by continuing his visits merely for the sake of charging them, he would degrade and injure both himself and his profession.

In the moral government of the world, suffering seems to be the natural consequence, and the appropriate corrective of misconduct; and in human society I think we cannot do better than to follow this course, so far as to let him suffer, who rejects the assistance he needs, till he is willing to accept it.

If it be thus the duty of the physician to bring to the alleviation of human ills, and the preservation of life, the best affections of the heart, with all the stores and endowments of the mind, what should our feelings and our conduct be towards him who perverts his knowledge to its destruction, and what is worse—to the destruction of moral purity? Believe you, gentlemen, that such monsters exist, and in the midst of us? It is for the profession to hold no voluntary intercourse with beings thus horrible and corrupt. It is for society to avoid them as they would the stroke of annihilation. It is for the ministers of justice to ferret these wretches from their dark places of cold blooded, deliberate, systematic murder, and

for the laws to inflict on them an adequate and salutary punishment.

A decided feeling of disapprobation has lately been raised against our profession, in consequence of another offence, committed by a few of our number, and which ought not to escape notice on this occasion; I refer to an abuse of the privilege of dissecting dead bodies. A large and enlightened portion of the public are fully aware of the importance and necessity of a knowledge of the structure of the human fabric, to the physician and surgeon, and are entirely disposed to favour the profession in the exercise of this means of instruction, so long as it is confined to the legitimate objects of science, and so far as the laws of decorum are observed, and the feelings of humanity strictly respected.

If such is the admission and the support of the public sentiment, such the views and opinions of the profession generally, it seems almost incredible that any part of its members should be found to differ so widely from the rest, as to regard the violation of the sanctuary of deceased friends as a matter to be viewed with indifference and contempt. Is it possible in an orderly community, that any medical practitioner should be found to engage in a traffic of dead bodies? Will it be credited that numbers of dead bodies should be obtained for no other purpose than to strip off the flesh in order to make sale of the bones to

the highest bidder? Is it credible that men of the profession can have so wholly forgotten what is due to themselves and their brother practitioners, among whom they live, and whose safety they are bound to regard, as to engage to supply subjects for dissection, to persons at a distance, whenever they are called for?

To these questions, the public voice has answered loudly in the affirmative.

An odium has thus been brought on the whole profession, and serious consequences have been threatened.

It becomes us then, as a Medical Community, to express our disgust and abhorrence of this practice, and to use every means in our power to suppress it, and if this cannot be done, to do ourselves the justice at least of separating the guilty individuals, whoever they may be, from the body they are willing to dishonour.

Let those in fault feel persuaded that we are not ready to justify their proceedings, nor to share their responsibility.

No sufficient excuse for these excesses can be derived from a love of science, none from a love of gain, and least of all from a willingness to permit the odium of these transactions to fall on other individuals, and other institutions. The custom of human dissections should be limited to those who are imperiously called on to practise them, and by these it should be done under such

precautions, that no friend or relative should ever experience the distress of knowing that the body of one, in whom he was interested, had been removed from its silent, and may we for the future add, its *sacred* abode.

But I turn with relief to a consideration of professional intercourse.

To every feeling and reflective mind, the business of the physician is a grave vocation, for not only health and sickness are concerned, but life and death are involved in its exercise. Such are its cares, its solicitude, and its labours, that every individual, more or less, needs the aid and sympathy of his brethren.

The aid he seeks, however, to fulfil his wishes, must come from a friend, or from a professional brother in whose honour, integrity, and skill he fully confides.

Here there is no jealousy, no fear of loss or injury; the medical attendant feels safe both for himself and his patient.

Here is an unreserved interchange of minds, and a union of efforts for the mitigation of suffering and the cure of disease.

Where the resourses of our art fail us, the consciousness of this faithful and assiduous application of all its powers, affords the best and only earthly consolation, which the situation of the physician so often and so much requires.

To render this intercourse what every one would like to receive from others, codes of regulations have been framed, enacted, and subscribed; and these have doubtless had their use, where higher motives have been wanting, in restraining some from violating the laws of honour, and trespassing on the rights of others.

But these statutes, however numerous, will never fully succeed without that better law, written on the heart, which prompts us to treat others as we like to be treated; and with this, the statute book would be superfluous.

After ignorance and knavery, nothing is so fatal to the tranquillity and reputation of individuals, or to the general success and character of the profession, as a want of liberality and good offices among its members.

Duty and interest are perfectly coincident, for the most part in this world, but always and exactly so, if we take into view the whole of existence; this is implied in the notion of a perfect government.

Thus they, who have been so unwise as to regard their own supposed interest only, at the expense of others, will at last find, that he who has given up all temporary advantages rather than counteract his moral sense, or the relations of life, has infinitely better provided for himself than he who has obeyed the impulse of a blind and unprincipled self-love.

Some men of our profession, deeming fame and wealth the only objects worth their pursuit, have endeavoured to find some easier and more expeditious way than this to accomplish their ends. But the termination of the experiment has always proved the validity and wisdom of the good old axiom, that honesty *is* the best policy. This expedient demonstrates too the entire unsuitableness of all indirect and oblique measures for the accomplishment of any fair purpose, and frequently their impotency even in aid of a bad one.

Further, this management involves the uncomfortable necessity of substituting appearances for reality, and pretension for sincerity. "Now the best way for a man to seem to be any thing, is really to be what he would seem to be. Besides, it is often as troublesome to support the pretence of a good quality as to have it, and if a man has it not, it is most likely he will be discovered to want it, and then all his labour to seem to have it is lost."

The profession of medicine has been charged with being infidel and unchristian; but this, as a general accusation, might be refuted by an appeal to the lives of many individuals who have exhibited every virtue, that is becoming and excellent in the human character.

In every just government, power and responsibility are equal, and as we have no controlling influence over each others' motives and actions,

so no individual is any further responsible for the general reputation of the profession, than as he makes it worse by his example, or fails to make it better, by all the means in his power. But without stopping precisely to adjust the proportions of truth and falsehood contained in reproaches like these, every good physician will be desirous to disprove, by his conduct, the odious maxim, *medicus non christianus.* The standard of professional respectability is unquestionably susceptible of elevation, both in morals, literature, and science; but in the meantime it is right that every individual should stand, as ultimately he must stand, or fall, on his own merit or demerit. Is there any thing in the study or practice of medicine, as has been said, which leads to infidelity? So far from this, anatomy itself, the first thing we learn, demonstrates the existence of a power altogether superhuman. Does any man know what life is, can any one understand the wonderful phenomena ascribed to sympathy, or the impenetrable mystery of generation?

Does any physician comprehend the mode by which remedies produce their effects?

All these secrets, and numberless more, God has reserved to himself.

What is so inconsistent as for a well educated physician, not to refer to the will and agency of a First and Infinite Cause, all those results and

effects which he continually meets, and for which he can no otherwise account?

This is natural, and has been the feeling and practice of the greatest and best men of our order.

Since our last meeting, two of our associates have terminated their connexion with this society, and the period of human existence. These were men of whom we cannot speak, but with esteem and respect.

They were distinguished by a love of knowledge, by moral worth, active benevolence, and a faithful discharge of their professional and social duties.

They were worthy of the profession they had chosen, and were useful and reputable members of the community in which they lived, and which they served, and by whom their loss is with reason lamented.*

To conclude. "Is it possible that greater inducements can be offered to a young man, to stimulate his most strenuous exertions, and to call forth all the force of his understanding, and every generous feeling of his heart, than are to be found in the nature, the extent, and the influence of our profession?

"Occupied on the most important subjects, the ease, the comfort, the happiness, and the lives of

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* Dr. Abijah Richardson, of Medway, and Dr. Jonathan Osgood, of Gardner. The latter gentleman was also a clergyman.

his fellow-creatures, it imperiously calls for knowledge and ability. Extensive, beyond the limits of any other science, in the variety of its objects, the continually varying nature of its subjects, and the endless, progressive march of its improvements, it is impossible either to acquire what is now known, or to keep pace with its daily accessions of knowledge, but by a zeal and industry as steady and persevering as time itself.

"Extended over the face of the whole earth, and at the same time penetrating into the recesses of every private family, unless our knowledge be accompanied by prudence, virtue, and religion, we may do more harm by our example, than we can do good by our skill.

"May then every student and practitioner of medicine lay these important truths seriously to heart; that each may study and practise his profession, not only from motives of ambition and interest, but with a view to the better fulfilment of his moral and religious duties.

"That he will conscientiously consider the responsibility of his station, and the influence of his example, and that while he faithfully and respectably fulfils his duty to his patients, by his talents, learning, and industry,—he will support the dignity of his own character, by the correctness of his conduct, and recommend his example, by the purity of his manners: and may peace, reputation, and fortune, be his well-earned reward."

THE END.

ARTICLE II.

A

DISSERTATION

ON THE

PROGRESS OF MEDICAL SCIENCE

IN THIS STATE.

BY HENRY W. CHILDS, M.D.

Read at the annual meeting, June 2, 1823.

GENTLEMEN,

IT is my purpose to employ the short period of time to which I have limited myself, in an examination of some of the causes which have retarded the progress of medical science.

Ignorance of the causes of the phenomena peculiar to animal bodies denominated Phusis by Hippocrates, Soul by Stahl, Vis Vitæ, and Force Vitale by others, stands opposed to a grand desideratum in medical science.

There is wanting in physiology what the discoveries of Newton have supplied to the physical sci-

ences. We view with admiration that wisdom which disclosed the principle that so harmoniously regulates the revolutions of the heavenly bodies—but the application to medicine of those laws which elucidate a great variety of consequences, by referring them to a few leading causes, has tended in no degree to advance the science of physiology.

It may well be doubted whether the mechanical theory of Boerhaave has not rather retarded than advanced the science of physiology.

His exalted reputation as a philosopher and a physician, gave popularity and confidence to a system, which contained the absurdity of governing the functions of living bodies by the same laws which regulate inanimate matter.

The various theories which have at different times been promulgated, the continual fluctuation of medical opinions, and the great and sudden revolutions which have ever characterized the science of medicine, all proclaim our ignorance of the fundamental laws which govern the animal economy.

The numerous medical publications, generally the product of closet speculations, their authors never having watched at the bed side of the patients whose cases they affect to describe, is a fruitful source of error and disappointment.

The medical nomenclature is a subject deserving our serious consideration, as intimately connected with the advancement of medical science. The acknowledged influence of language over the hu-

man mind, the difficulty of obviating that influence where erroneous impressions are conveyed, establish the importance of great accuracy and precision in medical terms.

Among the many injurious consequences that flow from the improper use of language in its application to diseases, is the danger of reposing confidently and quietly in the name, to the utter exclusion of any thorough investigation of the nature and peculiarity of the particular affection concerned. That this is a real and a practical evil a few examples will illustrate.

Thus Anasarca and Icterus have a conspicuous place assigned them in most of the nosological arrangements extant, and are treated as specific diseases without reference to the causes which produce them, indeed they are most commonly the effects of diseases or mere symptomatic appearances arising from various and different causes. And what are the causes that give rise to so many disputed points, and to so great a diversity of opinion, on the subject of fever? What but a want of accuracy in the use of terms? A most unaccountable deficiency of clearness and precision of language in discussing the subject of Fever? The practice of substituting effects for causes, symptoms for the diseases which they represent, tends to perpetuate ignorance and sow the seeds of discord and confusion.

The appellation of fever has been given to every form and degree of disease, from that of an ephe-

meral indisposition to disease of so malignant a character that to breathe its atmosphere would be to inhale a deadly poison. The term fever has been used to define disease, in the abstract itself undefined—originally confined to the expression of a single symptom, it has been considered an assemblage of symptoms. In a popular nosological work it holds a classific rank in the general arrangement of diseases, and mingles its influence with most of the disorders which disturb the functions of animal or organic life. From the manner in which some authors speak of fever, we should conclude that it is some "peculiar subtle essence," indivisible and incomprehensible! Instead of being a symptom, it is composed of numerous associate and inconsistent symptomatic appearances. Is it not high time to dispel the cloud of darkness and ignorance which hang over it, and to rescue the young in our profession from the many labyrinths of confusion and absurdity into which the numberless volumes devoted to the subject necessarily lead. Let us then restrict the term fever to some definite intelligible meaning, or expunge it from the medical nomenclature.

No rational mode of treatment can be adopted—none adapted to a particular case founded on such vague and indefinite descriptions. The cure of diseases must depend on the removal of the primary cause—a description of each particular affection with its diagnostic characteristics carefully examined and distinctly stated, is the only intelligible method of

communicating instruction, and of aiding the physician in his investigation of diseases, and his selection of the most appropriate remedies.

I appeal with confidence to you, gentlemen, who have had experience in the arduous duties of the profession, whether the value and importance of most medical writings be not greatly diminished, and the application of the knowledge they are designed to convey, rendered difficult if not impractible from the deficiency of precision and clearness in the records of diseases and their treatment. You give the affirmative answer, by your patient and laborious investigation of the cause, and modus operandi, of every interesting case in which your advice and assistance are required—on different occasions all your physiological and pathological knowledge and especially your experience are brought into requisition—you search out the latent causes, you take into view all the circumstances of age constitution and habits of life, you study all the symptomatic appearances with a discriminating judgment—you hold yourselves aloof from all visionary theory and prejudice, and with candour change your opinions and practice when preponderating evidence gives you the requisite authority—you are not less cautious and observing in the administration of medicines—you have occasion frequently to regret that the accounts of certain articles of the materia medica are unaccompanied with that just and accurate relation of circumstances which would enable you, *a priori*, to deter-

mine their just and appropriate value. The many omissions accompanying the extravagant commendations of favourite medicines, leave you but little practical information, you rely with confidence only on what you have learned from experience and observation.

Destitute of that only sure guide, experience, the reputation and usefulness of the young practitioner can be established only by the most persevering industry in the investigation of diseases accompanied by the most painful anxieties of mind. To assist and encourage the young by the communication of interesting discoveries and improvements, is it not greatly to be desired that some method of transmitting the valuable acquisitions of the wise and experienced in the profession should be adopted? And is not the correction and improvement of our nomenclature one indispensable means of accomplishing so desirable an object.

The various nosological systems which have been in high repute at different periods of time, have from their artificial and arbitrary arrangement had a powerful tendency to mislead the inquirer, and divert the mind from the investigation and discrimination of diseases, points of the greatest interest and importance in the practice of medicine.

Of the nosological arrangement of diseases as well as of the language employed to describe them—some change, some improvement must appear absolutely necessary to every reflecting physician.

The intimate connexion that exists between theories in medicine and the arrangement of diseases is exemplified in the artificial and frequently absurd nosologies, connected with the hypothetical and visionary theories of systematic writers. In perfect coincidence with his theory that "child of genius and misfortune, *John Brown*, reduced all diseases to the compass of two grand classes; and on the principle that every agent acting upon the human system was a stimulant differing only in force and degree, proportionably abridged the remedies to be employed, and although the simplicity of the doctrine of the nosological terms, and of the therapeutic means contained in the Brunonian system, may have disclosed some valuable principles, it does not, on the whole, appear that this generalization has been better adapted to the improvement of medical science, than the complicated and hypothetical classification of Dr. Darwin.

In the present state of medical science, the plan of Dr. Good, who has attempted to establish a nosological system on a physiological basis, seems the most unexceptionable. To incorporate the study of diseases with that of the animal structure, and the animal economy, has not, I believe, been attempted by any former systematic writer.

The study of anatomy, by which we are made acquainted with the structure of the human frame; of physiology which informs us of its functions; of pathology which instructs us in the diseases to which

it is subject, by being concentrated, instead of being separately and distinctly taught, would be an important step towards the advancement of medical science.

By thus uniting the several branches the interest of the student would be excited by the obvious practical use of his knowledge, and the field for future reward and usefulness would invite the exercise of all his genius, industry and perseverance. The introduction of such a plan into the study of medicine with an arrangement of diseases natural in its order, would have no occasion for that class of diseases which were denominated by Dr. Cullen "Catalogus morborum a nobis omissorum."

Thus it is that whilst all those sciences connected with medicine, have respectively an appropriate nomenclature and classific arrangement, to which they are indebted for much of their present elevated condition; medicine, destitute in a great degree of these important aids, as well as of those authoritative decisions which with the jurist become established law and the end of strife, has been subjected to injurious theories and ambitious speculations, which backed by the authority of a name, and perhaps, supported by the spirit of a party, have not unfrequently impeded the progress of the student, promulgated the most fatal errors, and called down upon the whole profession the reproach and prejudice of the community. New systems hastily constructed on the basis of a few peculiar cases, or most com-

monly the result of visionary speculations, have been received with approbation and applause, and having lived a brief existence, have been neglected as useless, or remembered as pernicious. Many of these productions have been exalted to influence and celebrity, have been honoured with proselytes and disciples, whose partizan zeal has made them forget that in a science so practical, no error can permanently maintain itself, even in theory.

It is not among the least of the evils which have resulted from those changes in medical opinions, which too many of our profession have been ready to adopt upon the promulgation of new theories, that community have withheld, in some degree, from the profession as a class, that confidence and respect which has been forfeited by a few, and which is at once due to every judicious practitioner, and especially to the welfare of his patient. Nor is it surprising, that the speculative and angry controversies among physicians, should go far to excite the prejudices of society, and impair their confidence in our integrity and skill. The fact is so; and let it read an impressive lesson of scrupulous examination to us all.

Let the experience of careful observation be thoroughly weighed by well established principles; and let every principle be carried through the severe test of repeated and varied experiments, and we shall arrive at a course of measures which will give certainty and precision to the most important of all sciences.

It is confessed, that an obstacle (perhaps insur-

mountable) to the ultimate perfection of medical science, exists in its nature. The impediment arises from our inability to define, with precision, the nature of that spiritual principle, life, and its influence upon our organization. It is, however, owing to a conviction of this important truth "we are ignorant of the nature of the vital principle;" that the attention of the physicians is now beginning to be turned away from all those splendid superstructures built on the imaginary qualities of the vital powers, to the humble, but more useful, labour of marking its effects in the varied phenomena of health and disease; and the true mode of philosophising, so long ago taught by Lord Bacon, and upon which were born the splendid discoveries of Newton, now at last forced upon physicians the important truth, that Medicine as well as Physics is a science of observation and experience; and hence it is that the writings of Hippocrates and Sydenham, so remarkable for their accurate details of symptomatic appearances, their perspicuous descriptions of the leading features of disease, and their true record of pathognomic facts are now again studied as invaluable treasures, and will secure to their names imperishable fame, when hypothetical speculation and visionary theory, with their hundred authors, shall be buried in oblivion. And the maxim of Cicero is found as justly applicable to medicine, as to the other varied pursuits of life.

> "Præstat naturæ voce doceri, quam ingenio
> Suo sapere."

Under the influence of this happy revolution in the plan of medical investigations, the recent pathological and physiological observations have been attended with so much success, as to promise an explanation of many of the phenomena of disease generally, and an elucidation of some of the pathognomic symptoms of the diseases considered as belonging to the class fevers, which may enable us to apply some corrections to the nosological systems, and improve the therapeutic department of medicine gĕnerally.

From these investigations it would appear, that it is not alone by the prevalence of a single principle that the phenomena of health and disease are regulated; but that the mechanical must share in reputation with the chemical theory; and the spasmodic made compatible with the humoral pathology, that the fluids and solids must each receive an appropriate attention in the healthy and in the disordered states of the system; the solids, as the seat and agents of most of the phenomena of disease, while the fluids are indispensable to their action, the vehicle of morbific matter, containing the principles of disease and producing disorder in the functions of the animal machine. The fluids dividing themselves into those of composition and decomposition mingling in the circulation of the blood, recrementitious and excrementitious principles, receiving and rejecting the poison of disease. Diseases, or their causes, may be introduced into the system by the clyle, by internal or exter-

nal absorption, as well as through the medium of the lungs; and they may be carried out of the system by means of exhalation or secretion, by the mucous or cutaneous surfaces, and by the organs destined to the separation of the several excreted fluids.

The crises which take place in a great variety of diseases, are explained upon the above principles, and an exhibition is made of the origin, and an illustration of the phenomena, and especially of the termination of epidemic diseases, and in short the great improvements now making in medicine, and all the collateral sciences, cannot fail speedily to rescue, in a great measure, the profession of medicine from the reproach of uncertainty which has too deservedly been cast upon it.

Gentlemen,—Experience has now given its sanction to the advantages of a State Medical Society.

By the co-operation of a liberal and enlightened government, its genial influence has pervaded every section of the Commonwealth.

The respectability of the gentlemen associated for improving the medical profession, and diffusing its benefits, inspired the government with confidence in the measures proposed; and the community have already experienced his benign influence.

The government having entrusted to this society the almost exclusive authority and responsibility of prescribing the qualifications which shall be requisite for admission to the practice of medicine. A consi-

deration of the means and advantages which are requisite to the acquisition as well as improvement in medicine, demands your careful deliberation.

To determine on the proper measures a nation or state should adopt for the advancement of medicine, (as well as their other varied interests) a consideration of all the circumstances and peculiarities of that state or nation is necessary, and in order to arrive at correct conclusions, an adaptation of literary and scientific institutions to the existing state of society, is not less to be regarded than that those of a political and civil nature should be suited to the condition of that people for whose benefit they are established. To a people ignorant and incapable of estimating, or exercising, the rights of freemen, an elective system of government would prove a greater evil than a monarchy; and on the other hand, any attempts to improve the maxims and principles of eastern monarchy or aristocracy, on the people of the States who have enjoyed the blessings, and known the value of equal rights, would be to secure to their authors that contempt which all ought to receive, who would endanger the successful issue of the political experiment which we trust is the happy destiny of this country to establish.

The discourse which we listened to with so much satisfaction, on our last anniversary on "Medical Education, and the Medical Profession," would entirely supersede any remarks from me on either of those subjects, but for the suggestion that medical

schools are in this country already too numerous, and the exhibition of a plan of medical education on the recommendation of a French physician, consisting of 20 professors, 18 courses of lectures annually, and extending the term to 5 years.

The advantages arising from the studies which may with propriety be denominated preparatory or preliminary, were ably elucidated by reasonings forcibly exhibiting the importance of the several branches proposed, and their application to the practice of medicine. The method of teaching the science of medicine recommended, must also meet the cordial approbation of every enlightened physician. But, are medical schools already too numerous in this country? I would ask you to consider the genius of our government, and the character and condition of the people from whom it emanates. Its basis is equal rights and privileges, and its guarantee the general diffusion of knowledge. Where is the patriot, the friend of knowledge, or the lover of science, who does not highly appreciate the primary schools of New-England? It is to these wise institutions of our fathers, accessible to all our youth, that genius, however humble its rank, is discovered and encouraged; and to those schools is this country already indebted for some of its ablest statesmen and most distinguished scholars, who have been her pride and boast, and who, but for the facilities of education peculiar to our country, would have remained forever buried in their native obscurity.

The equality of rights and of property, the peculiar privilege of our country, which ought and will have a controlling influence over all our civil, literary, and professional institutions, render the maxims and policy of the old world, whether political, literary, or scientific, entirely inapplicable to the state of society in this country.

Let us take a brief survey of our own state, and enquire what are the opportunities for acquiring a knowledge of medicine in Massachusetts.

Till within the last year, the medical school connected with Cambridge University, was the only institution in Massachusetts, where public instruction was given in the science of medicine, and its collateral branches.

The inducement to young men, in this state, to engage in the study of medicine, is not so much to supply the deficiencies in the Commonwealth, as to answer the demand for well qualified physicians in other parts of the country. The great extension of territory, and the rapid increase of population in the United States, call for an increased number of professional men; which, for many years to come, must be furnished principally from the older states of the Union. Out of the whole number of medical students in the Commonwealth, the proportion who are enabled to attend the instruction of the distinguished professors of Harvard, is inconsiderable. Within the last few years an alarming number have resorted to the medical institutions of the ad-

joining states; and many have been licensed to practice who have had very inadequate means for obtaining the requisite qualifications. Do these facts afford evidence that our medical schools are already too numerous? Do not the interest and the reputation of Massachusetts, require that the means of medical instruction should be multiplied? The government have evinced a disposition to co-operate with you in the support of such a system of measures as are best calculated to advance the science of medicine, and to diffuse through community the many blessings that flow from its improvement.

Graduate then the qualifications requisite for the profession, by the means which you afford the student for their acquisition, and rise higher and higher in your demands as you multiply the facilities of education.

THE END.

NOTICE

OF

TIMOTHY CHILDS, M.D.

A DISTINGUISHED MEMBER OF THE MASSACHUSETTS MEDICAL SOCIETY.

Dr. Childs was born at Deerfield of this commonwealth, in February, 1748. He was entered as a member of Harvard College in 1764, but was under the necessity of taking a dismission at the close of his junior year, by the failure of the funds on which he had relied to carry him through the regular class course of that seminary. From Cambridge he returned to Deerfied, where he studied physic and surgery with Dr. Williams, and from whence in 1771 at the age of twenty-three, he removed to practice in Pittsfield. An ardent and decided friend of civil liberty, he took a deep interest in those great political questions which at that period were agitated between Great Britain and her American colonies. No young man, perhaps, was more zealously opposed to the arbitrary encroachments of the British parliament than Dr. Childs, and as a proof of the confidence reposed in him by the fathers' of the town, it need only be mentioned that in 1774, when the crisis of open hostility was approaching, he was appointed Chairman of a Committee to draft a petition to his majesty's justices of Common Pleas in the county of Berkshire, remonstrating against certain acts of parliament which had just been promulgated, and praying them to stay all proceeding till those unjust and oppressive acts should be repealed This spirited and patriotic petition stands recorded at length in the first volume of the town records.

In the same year, 1774, Dr. Childs took a commission in a company of minute-men, which in compliance with a recommendation from the convention of the New-England states, was organized in that town. When the news of the battle of Lex-

ington in 1775, was received he marched with his company to Boston, where he was soon after appoined a surgeon of colonel Patterson's regiment. From Boston he went with the army to New York, and from thence accompanied the expedition to Moutreal. In 1777, he left the army and resumed his practice in the town of Pittsfield, and continued in it till less than a week before his death at the advanced age of 73.

In 1792, Dr. Childs was elected a representative to the General Court of this commonwealth, and for several years received the same pledge of public confidence. He also held a seat in the Senate for a number of years, by the suffrages of the county in which he lived and died. But it was in his profession he was most highly honoured and extensively useful. He was early elected a member of the Massachusetts Medical Society, and held the office of counsellor of that society to the time of his death. Some years ago the University of Cambridge conferred on him the degree of Doctor of Medicine. And recently, when a district society composed of the fellows of the state society, was established in the county in which he lived, he was appointed censor and elected to the office of president.

As a practitioner, Dr. Childs stood high in public estimation, both at home and abroad. For more than thirty years he was the only physician of note in the town, and this single fact strongly testifies to the uncommon estimation in which he was held by those who were most competent to judge of his professional skill and success. He was also highly esteemed and often employed in the neighbouring towns. Dr Childs was always the steady advocate and support of religious institutions, and during the last year of his life he manifested an uncommon interest in experimental religion, and in his last sickness especially, he spoke often of the blood and righteousness of Christ as the only hope of a sinner. Few men have continued in the practice of the profession so long or have held out with such vigilance of body and mind to the last, or have been more useful in their professional and social circles. He died on the 25th Feb. 1821, as he lived, honored, respected and lamented.

ARTICLE III.

A

DISSERTATION

ON THE

EXCESSIVE USE OF ARDENT SPIRITS.

BY ROBERT THAXTER, M.D.

Read at the annual meeting, June 5, 1824.

GENTLEMEN,

I PROPOSE to make some remarks on the effects of ardent spirits, and the method of treating those, who indulge in an immoderate use of them. I cannot offer any thing new; but shall endeavour to select such sentiments as accord most with my own.

The effects of intemperance in drinking are immediate and remote, or such as are of a chronic nature.

The immediate effect is drunkenness, the symptoms of which are almost as various as the subjects, and so generally known, that it is unnecessary to de-

scribe them. The first effect of spirit is stimulating, causing pleasurable sensations, and vigour of body and mind with the exception perhaps of judgement and reflection. The last is indirect debility, or exhausted excitability, showing itself by loss of voluntary motion and sense.

The diseases, which are supposed to be immediately caused by a paroxysm of drunkenness, are fearful dreams, hysterics and convulsions, epilepsy, and apoplexy.

The chronic effects of habitual indulgence in ardent or vinous spirit are excitement, and aggravation of every disease, to which the patient is predisposed, and the production of many symptoms, peculiar to those, who so indulge. Such persons are particularly exposed to all acute diseases, as inflammatory complaints and fevers of every description. I think inflammatory complaints are most apt to take place in those persons, who only occasionally indulge and whose constitutions are not much impaired. It has been said, that drunken persons resist contagion, cold, and every exposure more effectually, than sober persons. Though this may be the case during the excitement of intoxication, as soon as that excitement is removed, the system is left more susceptible of the influence of every exciting cause of disease. Dr. Rush says, in the yellow fevers which have visited the cities of the United States, hard drinkers have seldom escaped, and rarely recovered from them. Seamen, &c., who indulge in this way in hot climates,

are said to sicken much more frequently, than those who live temperately. Whenever such persons are attacked with any disease, they are very irritable, and disposed to many nervous affections, as tremors, spasms, watchfulness and delirium. They are much disposed to sweat, and their strength sooner fails, than that of other persons. An old habitual drunkard is usually marked by a bloated or haggard countenance, red nose, inflamed eyes, or eruptions on the face. Acrimonious sores, resembling scalds, on the back of the hands, and phagedenic ulcers on the legs are frequent occurrences among such subjects; and venous plethora almost universal, which is manifested by a disposition to bleed from the nose, hemorrhoidal veins, and even from slight wounds. At the same time that the vessels are crowded with blood, the muscular power, particularly of the heart, is diminished. Though the whole body becomes debilitated the venous and absorbent vessels appear to loose their healthy action, sooner than the arterial.

I might proceed to enumerate a long catalogue of symptoms; but as authors have attributed specific diseases to habitual intemperance, I shall follow their example.

The first and most frequent disease, which presents itself, is dyspepsia. It arises in this, as in most other cases, from a derangement of the functions of several viscera. The stomach received the first impressions of the spirit, and consequently first suffers. After excessive excitement its excitability is exhaust-

ed, and digestion suspended for a time. Frequent repetition of the same cause produces permanent debility of this organ. The liver and other organs, concerned in digestion, sympathise with the stomach, and consequently increase the difficulty. Probably the bile is vitiated also by the quality of the blood, which is carried to the liver. This is the first effect on the digestive organs, and very considerable derangement of their functions may arise, while the organs remain sound. In very aggravated cases, probably some of the organs become diseased.

I believe, it is generally thought, that all the viscera, particularly the liver, of hard drinkers are apt to become inflamed and schirrous, and even the blood vessels to be hardened. These affections are occasioned more readily by distilled spirit, than by other liquors. But Dr. Trotter says, "even the guzzler of small beer has no security against them." My experience however does not confirm this idea, as it regards the stomach. I have had only three clearly marked cases of schirrous stomach, and neither of these persons was considered intemperate. One was a very temperate man. I saw one case, the subject of which was a child. In a review of Cardet, on schirrous stomach it is said, that he thinks spirits very rarely produce the disease. I have seen ossified blood vessels in very temperate subjects. I saw them in one very intemperate person, whose leg was amputated. The arteries were all so far ossi-

fied, that they had lost their contractibility. Fourteen were tied.

I will mention in this place a symptom, which has frequently occurred among my tippling patients. This is diarrhœa. It seems to be something more, than the effect of vitiated and redundant bile, which are common to inebriates. It appears in a chronic form, and is frequently accompanied with a very sore mouth. The tongue is very red, or more pale than natural, clean and moist. I suppose, it commonly arises from a chronic inflammation of the mucous membrane of some part or the whole of the alimentary canal, which possibly sometimes proceeds to ulceration.

Dropsy, diabetes, gout, jaundice, marasmus, impotency, and premature old age are ranked among the diseases of intemperance.

Though the body suffers so much, the mind suffers as much, or more. Its effects are every day seen among habitual drunkards in erroneous judgment, insensibility and fatuity. Perhaps no cause produces so many cases of Cullen's *Vesaniæ*, as intemperance. Dr. Rush says, one third of the maniacs in the Pennsylvania hospital had their disease produced by ardent spirits. The proportion in the asylum at Charlestown has not been so great. Dr. Wyman informed me, that of three hundred and three patients, received into the asylum, the insanity of twenty-eight was supposed to have been produced by this cause.

The foregoing diseases are common to all. There are some, which are peculiar to inebriates.

The first of these, which I shall notice is described by Dr. Jackson, under the title of *Arthrodynia a potu.* I have never seen a well marked case, though several which approach it. I shall therefore give the description in the Doctor's own words.

"This arthrodynia comes on gradually. It commences with pains in the lower limbs, but especially in the feet; and afterwards extends to the hands and arms. The hands may be affected first in some instances; and in all cases in an advanced state, the pain is more severe in the feet and hands, than in the upper parts of the limbs. The pain is excruciating, but varies in degree at different times. It is accompanied by a distressing feeling of numbness. After the disease has continued a short time, there takes place some contraction of the fingers and toes, and an inability to use these parts freely. At length the hands and feet become nearly useless, the flexor muscles manifesting, as in other diseases, greater power than the extensors. The whole body diminishes in size, unless it be the abdomen, but the face does not exhibit the appearance of emaciation common to many visceral diseases. This diminution is especially observable in the feet and hands; and at the same time the skin of these parts acquires a peculiar appearance. The same appearance is sometimes noticed, in a slighter degree, in the skin of other parts. This appearance consists in a great

smoothness and shining, with a sort of fineness of the skin. The integuments look as if tight and stretched without rugæ or wrinkles, somewhat as when the subjacent parts are swollen; but the skin is not discoloured. Yet in this disease there is not any effusion under the skin, and the character, which this assumes, arises from some change in the organ itself. A similar appearance may sometimes be seen, I think, in cases of paralysis. It may arise perhaps from similar causes in the two diseases; for in this arthrodynia there is a partial paralysis. But here the paralysis is to be referred to some affection of the muscles, and not to the nerves, as in common paralytic cases.

"The most characteristic symptoms of this disease are manifested in the limbs; but the pain is not limited to these, and other symptoms are exhibited in other parts. The pain sometimes shoots suddenly up one or both legs, and in one case it frequently passed up the back and then forward to the pit of the stomach, taking the course of the diaphragm. The functions of the stomach are always impaired, and generally very much. The appetite is lost, or is morbid, the patient craving only the most powerful stimulants; the food is often rejected, and constipation or diarrhœa take place. The mind is weakened; but it is free from delirium ordinarily, and is alive to the horrible sufferings of the disease. Sleep is prevented by pain and is procured only by opiates.

"In the progress of the disease spasmodic affections often ensue, and both mind and body are liable to be disturbed and agitated by slight causes. The powers of life at length are exhausted and delirium perhaps occurs at last as a precursor to dissolution."

Dr Lettsom, describes symptoms much like the foregoing. After relating a number, he says, "the lower extremities grow more and more emaciated, the legs become as smooth as polished ivory, and the soles of the feet even glassy and shining, and at the same time so tender, that the weight of the finger excites shrieks and moaning; and yet I have known that in a moment's time heavy pressure has given no uneasiness. The legs, and the whole lower extremities, loose all power of action. The arms and hands acquire the same palsied state."

The last disease which I shall name, has been denominated Delirium tremens, Delirium vigilans, brain fever of drunkenness, &c. Doctors Sutton and Armstrong have described the disease very fully. To these authors I refer for a minute description.

The attacks of this disease are usually moderate and after the sudden disuse of spirit. Sometimes sudden, and when the use of spirit has not been discontinued. The disease usually occurs in habitual drunkards. Sometimes in those, who have never or very seldom been intoxicated, and who have used spirit improperly only a short time. It has been produced by immoderate use of opium, and by other

stimulants, as Sulphuric Æther, &c. It generally commences with the ordinary symptoms of fever. Sometimes with cholera or an epileptic fit. Frequently after wounds and other diseases.

The most characteristic symptoms are delirium of a peculiar cast, tremors of the whole body, but particularly of the hands, sweating and watchfulness. There is some disagreement, which of the latter is most characteristic and frequent. Dr. Sutton says, tremor stands first, and sweating next. Dr. Hayward says, I think with truth, watchfulness stands first. This latter symptom is so constant, that a return of sleep is by all considered a presage of recovery.

The most unfavourable signs, according to Dr. Armstrong, are "indications of coma or convulsions; perpetual watchfulness; excessive irritation; violent and often renewed struggles; very rapid and thready pulse; frequent vomiting; extremely cold skin; subsultus tendinum; and especially small contracted pupils with a degree of strabismus."

I said Delirium vigilans was the last disease, I should name. It is proper, however, to notice spontaneous combustion. It has been doubted, whether this event ever occurred; but several well attested cases are related, and I find, it has been introduced into a late nosology.

I do not clearly comprehend, how alcohol produces its effects on the system. The immediate effect is an unnatural stimulus on the stomach. Whether

the heart sympathizes with the stomach, and endeavours to expel the enemy from the system, or whether the alcohol is taken up unassimilated by the lacteals, and carried directly to the blood, thereby causing the blood to be unnaturally stimulating to the heart, I am not furnished with facts sufficient to determine. The fact, that certain substances pass off very quickly by urine, warrants the conclusion, that alcohol may be absorbed. The hydrogenous gas, which escapes from the lungs of inebriates, which discovers itself by its fetor, and which is said to have taken fire, confirms the same supposition. Dr. Trotter says, "when a large quantity of ardent "spirits is swallowed at once, it acts so suddenly on "the stomach, and by consent with the whole ner-"vous system, that the common phenomena of ebri-"ety do not take place. It approaches at once to "the most dangerous point, for the man often falls "down insensible as soon as he has finished his "draught." He also says, the arterial blood of inebriates approaches nearer to venous blood, than that of temperate persons. If so, this will account for many of the symptoms of inebriates: for we all know, if any organ be supplied with venous blood only, its functions will soon cease. Though either of these hypotheses will account for a morbid action of the heart, neither explain, why the blood is sent particularly to the head. The unnatural fulness of the veins, observable in drunkards, will partially ac-

count for the effect on the brain. Allowing this congestion does not exist in a greater degree in the brain, than elsewhere, it will produce much derangement of its functions. The symptoms of delirium vigilans depend principally on this cause. But it is not so easy to determine, whether the functions of the brain are impaired by venous congestion, by sympathy with the stomach, or by inflammation. Probably venous congestion is the principal and most frequent cause, sympathy next, inflammation seldom. Dissections prove, that in this disease there is congestion of the brain and liver, and sometimes effusion of serum in the cavities of the brain, and between it and the membranes.

In the treatment of all diseases I was early taught to attend to the peculiarities of each patient, to the habit and mode of living, as well as to the natural temperament of the subject. It is always useful to keep a proper balance of action and reaction in the vessels, and an excitement proportioned to the excitability. There is a certain state of excitement, which promotes regular action of all parts of the body, beyond or short of which the functions of some part will be deranged. This idea is more necessary to be kept in view in the treatment of inebriates, than of any class of patients whatever. All parts of the system of intemperate persons act less uniformly and regularly than those of temperate. There is more exhaustion of excitability: consequently more danger of that collapse or torpor, which so fre-

quently follows extreme excitement. The proper course to be pursued with persons, addicted to the use of ardent spirits, must of course vary very much according to the state of the subject, and the intent to be answered.

If the object be to abolish the habit of drinking, the first thing to be done must be to engage the resolution of the patient to abandon his cup. Writers recommend many expedients, as exciting counter passions, painful associations, &c.; but they all tend to the same point, that is, strongly to affect the mind. The disposition, situation, and particular cause of each case must be studied, and the arguments adapted accordingly. In a few cases, where the desire to drink arises from bodily indisposition, it may be removed by removing the disease. After the resolution to abstain is established, or when the patient can be controlled, it is a question, what method is best to be pursued.

If the person enjoy tolerable health, there can be no doubt of the propriety of abstaining at once, and altogether, from spirit of every kind, and I think from all stimulants. Few persons have resolution sufficient to taste a little, and stop at a proper quantity. The very tasting gives an inclination for more. As Dr. Rush says, "'Taste not, handle not, touch not,' should be inscribed on every vessel, that contains spirit, in the house of a man, who wishes to be cured of habits of intemperance." If the constitution be not very much impaired, and the tone of the

stomach nearly destroyed, nature will very soon restore the healthy action of all the viscera. If the constitution be very much impaired, some stimulus must be allowed; but it had better be any thing in the form of medicine, than spirit or even wine. Bitters, infused in water, may be substituted, and sometimes opium may be necessary. The diet should be regulated according to Dr. Lettsom's method, which is this: "The patient should be allowed to fix upon some one species of nutriment; and whatever it is, should be confined to it alone, and that in the smallest quantities possible, and at regular stated distances, that the preceding portion may be properly digested, before any addition be allowed: when the stomach has thus acquired more tone, either some new, or an increase of the former nutriment, may be admitted." If the stomach be not much impaired, it will not be necessary to adopt so strict a course. If it be very much indeed, it may be necessary to add to this a course of stimulants, as before suggested.

If, on the contrary, a person be attacked by a violent disease, or be severely wounded, especially if he be an old drunkard, and his constitution much impaired, I think it dangerous to deprive such a person of his accustomed beverage at once. Nature, under such circumstances, may sometimes be able to overcome the disease, and the debility, consequent upon a deprivation of the accustomed stimulus; but she will much oftener sink under the

exertion. It has been said, that in the Almshouse of Boston, and in the State Prison, where drunkards of every degree are admitted, and immediately deprived of spirit, no death has taken place in consequence. I do not doubt the correctness of this assertion, as it respects subjects, whose constitutions were not very much impaired; but, if the same treatment be given to all such subjects, who are admitted, labouring under other diseases, than those caused by inebriation, I strongly suspect, many, who have died of those diseases, might have been cured. I am confident, I should have lost many patients, who have recovered, if I had not allowed some spirit, or substituted some other stimulant. Generally some substitute may be used; but in some instances nothing will answer but a portion of the old beverage. Opium appears to be particularly salutary in all diseases of inebriates, and may commonly be substituted for spirit. In the treatment of all diseases of inebriates, particular regard to the stomach is very necessary. This organ sympathizes so much with every other organ, that, if it be deprived of its accustomed stimulus, the whole system suffers, and the patient will many times sink under the evacuations, absolutely necessary to remove the disease. If the blood vessels be crowded, or there be local inflammation, blood must be drawn. Owing to the disproportion between the power of the heart, and the load to be moved, frequently it may be necessary to lessen the quantity of blood, when the pulse

does not indicate it. If impurities of any kind be accumulated in the first passages, they must be evacuated by emetics or cathartics. At the same time a proper stimulus must be kept on the stomach. It had frequently best be done by the article, to which the patient is most accustomed. I think, by this method, I have frequently prevented many nervous affections, and sometimes delirium vigilans. I have known sleep produced, when the latter disease has been threatened, by a decoction of motherwort, leonurus cardiaca, and a portion of spirit, more readily than by opium. In all cases, however, the quantity of spirit must be diminished, and in all those diseases, which arise solely from its abuse, it must be abandoned very soon. Without its abandonment very few recover. With it very few fail to recover. A good general rule to be observed in the use of spirit, is to mark the effect produced by its use and disuse. If the appetite improve, and the system become more calm by abstinence, it must be abandoned. If, on the other hand, the patient sink, and become more irritable, recourse must be had to it again.

Having said so much on the general treatment of inebriates, it will not be necessary to say much on the treatment of particular diseases. Nearly all the diseases, which have been named, are common to other persons, and receive the same treatment which they do in other persons, modified according to the peculiar habit of the patient.

It is proper to say something on the method to be pursued during a paroxysm of intoxication. First, the head and shoulders must be elevated, and all obstacles to free respiration and a free return of blood from the head must be removed. The contents of the stomach must next be discharged by an emetic, or tickling the fauces. The head should be cooled by rubbing it with cold water, &c. If these do not restore the patient, and he be very insensible, especially if the respiration be stertorous, bleeding will be necessary. The efficacy of this remedy has been doubted. I have never had occasion to bleed except once; then it was decidedly useful. Plunging the whole body into cold water, producing profuse sweat, terror and anger have all removed drunkenness.

Not having seen a well marked case of the disease, quoted from Dr. Jackson, I must also quote his treatment.

He says, "I have employed various remedies, of which the following only appear to have been useful."

"First, abstinence from spirituous liquors of every kind, either in the form of medicine, or in any other form. The effect of this abstinence is gradual, but it is so great, that it is difficult to say whether the remedies to be mentioned after this, have not appeared more useful than they really were."

"Second, opium in sufficient quantities to relieve the pain at night and procure sleep. For this pur-

pose several grains have been necessary at first, in some cases; but in the course of a few weeks the dose being gradually diminished, the opium may be omitted entirely. It is important to do this as soon as possible."

"Third, warm bathing, friction, and other gently stimulating applications to the skin."

"Fourth, the regulation of the stomach and bowels in such manner, as the circumstances of each case may indicate. I believe that, when there is any appetite, animal food is generally most useful."

Delirium tremens has caused some disagreement respecting its cure. The disagreement appears now as much about particular remedies, as general principles. According to Dr. Sutton, the disease must have been much more severe in his vicinity, than I have ever seen it, or the treatment very unsuccessful. He thinks, by the mode of proceeding, usually adopted previously to the method recommended by him, the average of recoveries was not more than one in three. This mode appears to have been strictly antiphlogistic under the idea, that the disease was phrenitis.

Dr. Sutton depends almost entirely upon opium: though by his cases it appears, evacuations were made prior to the use of opium. Most of his patients lost blood in the early stage of the disease, and all, who lost blood, recovered. Of seven, who were not bled, three only recovered, and of these three

two had been sick several days of other diseases, before they were attacked by this. Notwithstanding this fact he observes, "in a very early stage of the paroxysm, if in a plethoric subject, blood may be drawn; but I do not recommend to the practitioner to wait to see the effects of it, with a view of repeating the operation, as thereby the life of the patient may be endangered. I should advise in such instances, after bleeding that recourse be had to the use of opium in the manner pointed out in the cases, and pursued to the extent required, as the sole remedy for this disease," that is, "of inducing rest and tranquillity ending in sleep." He also says, "I do not judge bloodletting to be absolutely necessary in any case of this disease, when the paroxysm is formed; but I cannot say, that its use has rendered the employment of opium less successful in its cure; therefore the practice may be employed, when strong evidence of plethora exists. I have found opium so capable of relieving all the symptoms, as to want no aid, and therefore, if the disease has continued some days, I should not be inclined to loose time by employing other remedies." On purgatives he also says, "I must first remark, that they are not a cure for the disease, though the use of them in this disorder may aid the effects of opium, and a pertinacious state of costiveness may retard its salutary operation. The bowels should therefore be attended to in every proceeding in the cure of this disease.

But it is not so much consequence to wait for the operation of the bowels, as to delay the use of opium. Purgatives therefore may be given in conjunction with this remedy: and when the symptoms remit considerably, and the bowels have not become open, the use of opium may be suspended for a little time to favour the operation of cathartics, and again resumed as occasion may require." Whether by administering opium very early, the most dangerous part of the disease might not be prevented, Dr Sutton is undecided. He was "cautious not to exhibit opium in the manner stated, except in such cases as appeared to be decidedly delirium tremens."

Dr. Armstrong considers evacuations more necessary, than Dr. Sutton, and does not depend so much on opium. He varies the treatment according to the energy of the constitution. He cautions against the use of opium in large doses till, the first passages have been thoroughly evacuated, especially in robust subjects. He says, however efficacious opium may be under judicious management, I have seen and heard enough to be fully convinced, that it is a very perilous practice to administer it in too large and repeated doses." He thinks bleeding not often necessary; but that it may frequently be used advantageously in the early stage of the disease. He thinks cathartics absolutely necessary, and in some instances that they must be frequently repeated. He observes, "when the bowels have been suffi-

ciently evacuated about two or three gallons of tepid water strongly impregnated with salt should be dashed over the whole skin, which ought to be immediately dried, and well rubbed with warm flannels. After this operation the patient should be put to bed, and about forty or fifty drops of tincture of opium exhibited in a little warm wine, and repeated at the interval of two or three hours, provided sleep be not in the mean time procured. If this do not restore the patient, he begins with two or three grains of calomel with a grain and a half of opium every six or eight hours, lessening the quantity of opium after the first day, and continues this course till the action of the calomel is discovered in the mouth. At the same time he repeats the tepid affusion three or four times in a day, if occasion require. He recommends some of their usual drink to very debilitated subjects. For robust, vigorous patients he recommends cold affusion. In advanced stages of very bad cases he says, "every species of depletion is of course out of the question. Under the most unpromising appearances a combination of calomel and opium will sometimes succeed; and whenever there is ground for doubting the propriety of evacuations, it should be administered in preference to every other expedient."

The general plan of treatment recommended by Armstrong corresponds more with my ideas, than any thing I have met with: unless it be Dr. Hay-

ward's remarks in the N. E. Journal of Med. and Surg. for July 1822. He there recommends more free evacuations, particularly by the lancet. I have never seen the disease treated according to the extreme of either a stimulant or antiphlogistic plan. Very early in life I saw it treated successfully upon the general principle of treating inebriates. At the commencement, if evacuations had not been used for other symptoms, evacuations were always made. The kind was chosen by the particular circumstances of each case. If the patient was young, or the blood vessels crowded, venesection was always resorted to. As the disease is generally accompanied with some symptoms indicative of impurities in the stomach and bowels, emetics and cathartics, one or both, were used according as nausea or constipation of bowels was most urgent. But under the idea, that the affection of the mind arose principally from sympathy with the stomach, some stimulant, and generally with it opium, was administered immediately after. This usually produced sleep and a mitigation of the delirium. If the patient was much debilitated, evacuations were less freely used, or, if any symptoms existed, which indicated evacuations, the debility, or more properly the collapse, produced thereby, was met by an additional quantity of stimulus.

By adopting this method the progress of the disease may very commonly be arrested. Evacuations

and anodynes may be alternated several days with advantage. In all instances the usual quantity of spirit must be diminished, and, as convalescence takes place, may be dropped altogether. If opium be used, it may be omitted very early. Though opium be very salutary in this disease, as it has produced it, we may conclude, that it acts much like spirit on the system, and that it must be omitted gradually, and as soon as possible. Restraint must be avoided if possible. A little management will generally keep the patient within bounds; but if it be necessary to resort to force, it must be effectual. The strait jacket had better be used at once.

I have never seen the tepid or cold affusion used: therefore I can say nothing of their utility. Blisters are generally condemned. I have seldom used them, or seen much effect from them.

Though I have taxed your patience so much, gentlemen, before I dismiss the subject, I wish to remind the younger part of my brethren in the profession, that country physicians are peculiarly exposed to temptation, and that a considerable proportion of those, who have practiced till they were advanced in life, have indulged too freely in the use of spirit. Let me therefore advise you religiously to abstain from all intoxicating liquors, while visiting your patients.

Note.—Since this dissertation was read two cases of Delirium Vigilans have fallen under my care, in

which opium was very freely used, and which in a degree corroborate the opinion of Dr. Sutton, that opium must be used to the extent of producing sleep, and that sometimes it must be given in large quantity to produce that effect.

The first patient had taken an emetic and cathartic at the commencement of the disease, and afterwards opium in doses of two grains, repeated two or three times at intervals of an hour every day. Notwithstanding this he slept none during four days. At twelve o'clock in the night of the fourth day, after having taken in the evening six or eight grains of opium, he took two hundred drops of tincture of opium at once, and was allowed to walk some time bare headed in the open air. This calmed him a little. After this two doses of one hundred drops, and one of two hundred were given before four o'clock, and at this time four about grains of opium. In the course of two hours he began to sleep, and slept considerably during the day, at first short unquiet naps, which became longer and more quiet. By the sixth day from the attack he had become nearly rational.

The other patient at the commencement cut his throat, and lost from three to four pounds of blood. Tincture of opium in doses of fifty or sixty drops, repeated at longer or shorter intervals, was administered without good effect the two first days. At this time two hundred drops were given at a dose,

and one hundred repeated every half hour, till he had taken five hundred. He then began to dose, and from that time became more rational.

Both these patients rubbed their faces and breasts, as though they itched badly, after they had taken a large quantity of opium, and before any other evidence of its effect was discovered.

THE END.

ARTICLE IV.

A MEMOIR

OF THE LATE

HON. JOHN BROOKS, M. D. LL. D.

President of the Massachusetts Medical Society, A. A. S. &c. &c.

BY JOHN DIXWELL, M. D.
Corresponding Secretary of the Society.

Read at the Annual Meeting, June 1, 1825, at the request of the Counsellors.

Nec unquam in suam famam gestis exsultavit ——————————— ita virtute in obsequendo, verecundiâ in prædicando, extra invidiam, nec extra gloriam erat. TACITUS.

GENTLEMEN,

IN conformity with the usages of our society, I had selected a medical topic for discussion, on the present occasion; but the decease of our President, involved the community in the most deep and poignant grief, and excited the sympathetic attention of your counsellors: They paid the tribute of their respect to his memory, and requested me to delineate his life and character, on this anniversary.* To do

*Note A.

this, in a manner somewhat approaching to the dignity of the subject, and as would comport with your esteem and affection for him, it was necessary that I should relinquish my original design. Instead of directing your attention to the means of arresting the fatal grasp of the king of terrors, it has become my melancholy duty to lead you to contemplate the magnitude of his conquests.

Death is not awed by greatness, nor "warded off by virtues:" He seems to take delight in aiming his shafts at superior goodness, and in sending "those, who bear the brightest image of their maker, to mingle with kindred spirits." But herein, he executes the benevolent designs of the Almighty; and the survivers are left the consoling and even delightful employment of displaying the excellencies of their departed friends, of portraying the beauties of their characters, and transmitting their bright examples to posterity.

If we look into the history of this Commonwealth, we find that many members of our profession have signalized themselves for their talents as civilians, and for their ardor in maintaining the rights of the people; and some of them have been distinguished for their splendid achievements in war. Although these patriotic labors and exploits are foreign from the sciential pursuits of our profession, and from the objects for which this society was founded; yet we cannot be insensible spectators of events which involve the happiness of the community, nor of the glory which our country has derived from the im-

perishable renown that these eminent patriots have acquired.

In a new country, individuals cannot devote themselves exclusively to science. The public exigencies call for the exertions of all classes of the people. In times of trouble and political contests, men of education in every profession, are looked up to for council and advice, and they give a tone and direction to public opinion. It is well known to you, that the venerable clergy of New England, were among the most able and indefatigable asserters of our political rights: The sacred character of their duties, forbad them to engage in the labors of the senate, or to signalize themselves in the field; but they brought the aid of religion to our support. They appealed to the God of justice for the rectitude of our cause, and lighted up a holy flame of enthusiastic devotion to liberty, which burnt with a pure and steady brightness, until our glorious independence was accomplished.

These patriotic services were no less important to the cause of pure religion, than to the political state of the country. Religious liberty, or the public exercise of that liberty, has its foundation in the freedom of civil government. On the contrary, there is no tyranny so insufferable as that which is exercised over the mind, controlling its powers and its prerogatives in the great duties of devotion. Hence, our ancestors, the pilgrims, forsook the enjoyments of a polished society and a refined life, together with all the endearments of friends and kindred, and en-

countered the dangers of a boisterous ocean, and submitted to the deprivations and hardships of a rigorous climate and a savage wilderness, that they might enjoy the free exercise of their religious opinions, and pursue their devotions, unawed by the odious decrees of an hierarchical monarch, or the persecutions resulting from the oppressive policy of a church government, in union with that of the state.

As it respects science or emolument, our profession is farther removed from any interest in politics than that of the divine. So totally disconnected is medical science from political, that the study of the one, completely abstracts the mind from the other. Neither can we perceive that the advancement of the former depends on the liberal principles of the latter. The faculty might continue their devotion to the physical sciences and the exercise of the healing art, as quietly and securely, under the most unlimited despotism, as in the most free republic; neither the despot nor the patriot, has any thing to fear from their researches, and they, each of them, have equal need of their aid. But the practical duties of the physician are calculated to call forth the sympathies and affections of the heart. He is in the habits of associating with society on terms of the closest intimacy. He is occupied in administering to the sufferings of mankind, and, if he be a man of feeling, he cannot fail to cherish a strong affection for those whom he relieves, and to sympathize with those who suffer. Influenced by these powerful

sympathies and affections, in addition to the common ties which bind man to man, he is led to take a deep interest in passing events, either physical or political, which affect the happiness of society. If the people be struggling under the oppressive hand of power, he hears their complaints with the most friendly ear—He feels for their sufferings—His heart throbs with the highest indignation for their wrongs—From the gloomy forebodings of his anxious mind, a tumult of contending feelings rises within him—He ponders on the means of relief—Bright visions of emancipation are unfolded to his view—His soul is enraptured with the prospect—The pure spirit of disinterested patriotism takes full possession of his breast, and controls all his powers and all his energies—If he be a man of eloquence, he mounts the rostrum, and animates his countrymen to heroic deeds and splendid achievements—If his talents and powers be of a more active character, he enters the field of battle and devotes his life to the freedom of his country. Thus the physician leaves the shades of retirement and the fields of science, enters into public life, and becomes the most pure and disinterested patriot.

The abilities requisite to form the hero and the statesman, exist in every class of society; but they are only called forth by great events, and in times of powerful collision. The principles and feelings which led to our independence, were admirably calculated to excite the most ardent enthusiasm, and to rouse into action those latent powers which, in more

quiet times, might have remained unknown. Were it not for this glorious event, our late President might have remained through life, the able and benevolent dispenser of the comforts and relief of our godlike profession, displaying the peculiar excellencies of his head and heart within the limited circle of his duties; but the hero and the statesman would have remained in embryo. The talents and virtues which were then called forth, and which regulated his conduct till his decease, we this day commemorate.

You call on me to exhibit him to you, as he appeared through life. To give a just and striking portrait of him is no ordinary task. It is easy to draw the outlines, but to finish the picture so as to display all that strength and dignity of character, together with that peculiar delicacy and composure which were so happily blended in the original, requires the touch of a master's pencil. Such was your love and veneration for him, that, if we can succeed in giving you a likeness which you will recognize, even though it should not display all the loftiness of his character, we trust that you will receive it with kindness and partiality.

It is the fortune of some men to derive their origin from a long line of illustrious ancestors, whose brilliant talents and heroic daring have descended as heirlooms to their offspring, and, while they shed a lustre on their name, have served as an incentive to glorious deeds. But the subject of this memoir could not boast of the exploits of his ancestors, as

a claim to preferment or an excitement to glory. His achievements were of a still more noble origin—they arose from the efforts of his own superior mind. His ambition led him to cherish the sentiments expressed by the wise Ulysses, when contending for the arms of Achilles.

> "Nam genus, et proavos, et quæ non fecimus ipsi,
> Vix ea nostra voco."

The Hon. John Brooks was born in Medford, Massachusetts, in the year 1752. His father, Capt. Caleb Brooks, was a respectable farmer, much esteemed and beloved by his friends and neighbors. His mother was a woman of superior personal charms, and of remarkable talents, for one of her advantages and station in life. She early discovered in her son those faculties which were destined to raise him from the plough to the first stations in society, and was solicitous to place him where he might cultivate them to advantage. We are probably much indebted to this excellent woman for the estimable traits of character displayed in the son. Character is formed at an earlier period of life than is generally supposed. The impressions made on the tender mind in the nursery, and the habits acquired there, have a permanent influence through life. Our matrons give the first and most important impress of our moralists, our statesmen and our heroes. Happy is the lot of those who have mothers of that superior excellence which rises above the vain show and glitter of life, whose pleasures centre in the

care of their offspring, in forming their habits and in directing their minds to elevated sentiments and noble objects, whose greatest pride is in those splendid ornaments, the virtues displayed by their children.

Mrs. Brooks had an excellent friend in her physician, Dr. Simon Tufts, at that time a very respectable practitioner in Medford. His high standing in our profession is evinced, by his being enrolled in the list of our members previously to the present organization of the society, when its number was limited to seventy, and none were elected fellows, but those who were the most distinguished practitioners in the state. Dr. Tufts observed the anxiety of the mother to elevate her son to a superior station in life, and encouraged her to give him as good an education as their finances would permit. He was accordingly placed at the town school, where he was taught the rudiments of science, and the Latin and Greek languages. Such was his proficiency in his scholastic studies, and so amiable and exemplary was his character, that he secured the friendship of Dr. Tufts, who took him into his family, at the age of 14, to educate him for his profession. The skill and science of the instructer, and the indefatigable attention of the pupil, supplied the deficiencies arising from the want of a liberal education. His progress in medical science, and in judicious practical observation, was such as to secure the confidence and respect of his master.

During his pupilage, the amiable traits of his char-

acter were more fully developed, and he began to display that talent and fondness for military discipline, which were eminently manifested at a subsequent period, and contributed to establish that erect and manly port, for which he was so remarkably distinguished. In the hours of relaxation from study, he amused himself with the drill and exercise of the soldier. His manners were so gentle and attractive, that he was the delight of all the village boys: they collected about him as the chief source of their pleasures and amusements; he formed them into a company, and trained and exercised them in all the duties of military discipline. Dr. Tufts' yard was often converted into a train-field, and displayed in miniature all "the pride, pomp and circumstance of glorious war." These juvenile scenes are still recurred to with pleasure, by those who were engaged in them, as the happiest moments of their lives.

He continued, until he was 21 years old, under the tuition of Dr. Tufts, who then advised him to commence the practice of physic in the town of Reading, and gave him a high recommendation to the people, as well qualified for that important trust, and worthy of their fullest confidence. He accordingly settled there, and was soon after married,* and his prospects were fair for a very respectable establishment in his profession; but he was destined to act a more conspicuous part in the great drama of life.

The storm which had been a long time gathering

*Note B.

in our political horizon, began now to assume a most portentous aspect, ready to burst over the country with destructive fury. The stout hearts and steady minds of our countrymen had been preparing for the shock, resolved to defend themselves against its tremendous power. The busy hum of warlike preparation was heard through the country. Companies were formed in almost every town, who held themselves in readiness to march at a minute's warning. One of these companies was raised in Reading, and Brooks was elected to command it. He gave all the attention he could to this company, consistently with his professional duties; and was active in his exertions to drill his men, and infuse into them that heroic spirit and ardent patriotism which animated his own breast.

He was, however, much perplexed to determine what course he ought to pursue in this momentous crisis. He had a strong attachment to his profession, and was deeply impressed with the moral obligations he was under, to discharge the duties of it with fidelity. The kindly affections of his heart, and the amenity of his manners, qualified him to administer relief with peculiar acceptance, and gave the fullest promise of a skillful and popular physician. He had just entered into practice with flattering prospects, and with all the ardor of a youthful mind. He had already many patients afflicted with severe disease. Judge then, with what reluctance he listened to the calls of patriotism, urging him to relinquish these prospects and duties, to engage in a contest fraught with the most appalling dangers to

himself and to his country. On the other hand, he had displayed such talents as a military disciplinarian, and was so esteemed and beloved by those who were under his command, and by all who were connected with him in military duty, that he was thought the most competent to take the lead in their affairs. In the organization of a regiment, he was elected a major. This honor he declined, from an apprehension that it might call him too much from professional duties, and involve him too far in the military and political movements of the times; so that he would finally be under the necessity of relinquishing his profession; an event which he was anxiously desirous to avoid. His fellow officers would not accept his resignation, and unanimously repeated their solicitations that he would assume the duties of an office which he was so well qualified to sustain. This flattering distinction was enough to shake his resolution. He again took the subject into serious consideration, and the same objections presented themselves to his mind. He then determined to meet his brother officers, and absolutely decline the honors they were disposed to thrust upon him.

He was thus situated, on the memorable 19th of April, 1775, when the news arrived that a detachment of the British army had marched to Lexington and Concord. His ardent patriotism then rose superior to all other considerations. His high-minded spirit could not shrink from the duties which devolved on him as a military commander. He ordered

out his company with promptness, and directed them to proceed on the route to Concord; and having made such provision for the medical relief of the sick under his care as the time would permit, he joined his gallant corps with all possible speed. Having arrived in the vicinity of Concord, he met the British on their retreat, with the cool and determined bravery of a veteran, and made such a disposition of his men, as to secure them from injury, and enable them to annoy the enemy with destructive vollies, as they passed a narrow defile. He then hung on their rear and flanks, in conjunction with other troops, until they arrived at Charlestown. The military talents and calm courage which he displayed on this occasion, were remarkable in a young man only 23 years of age, who had never seen a battle. It was noticed by those who had the direction of public affairs, and he soon after received the commission of a major in the Continental army.

He now entered on the duties of a soldier with ardor, and devoted all the powers of his mind to the cause of his country and the profession of arms. He carried into the service a mind pure and elevated, and ardent in the pursuit of knowledge. He had a high sense of moral rectitude, which governed all his actions. Licentiousness and debauchery were strangers to his breast; they fled from his presence, awed by his superior virtue. His gentlemanly deportment and unassuming manners secured the favor of his superiors in office, and rendered him the delight of his equals and inferiors. The following

description of Agricola by Tacitus, his inimitable biographer, is peculiarly applicable to Brooks.

"Nec Agricola licenter, more juvenum, qui militiam in lasciviam vertunt, neque segniter, ad voluptates et commeatus, titulum tribunatûs et inscitiam retulit: sed noscere provinciam, nosci exercitui, discere â peritis, sequi optimos, nihil appetere jactatione, nihil ob formidinem recusare, simulque et anxius et intentus agere."

Although he sought no enterprize through vain glory, his active zeal and high ambition led him to solicit the post of danger, if he could thereby render useful service to his country.

When Gen. Ward had determined to fortify the heights of Charlestown, and arrangements were made for this purpose, finding that he was not included in the detachment, he solicited the general to permit him to accompany it, and his request was granted. He was active during the whole night of the 16th of June, in throwing up intrenchments, in reconnoitering the ground, and in watching the movements of the enemy. On the morning of the 17th, when it was perceived that the enemy were making preparations for an assault, he was despatched by Col. Prescott, as a confidential officer, to inform Gen. Ward of the movements, and to represent to him the importance of his sending reinforcements. This duty prevented his being in that glorious battle which has immortalized the heroes who were engaged in it, and consecrated the ground to everlasting fame.

This action established the reputation of our countrymen for determined bravery, and displayed the lofty spirit which actuated them in defence of their rights; convincing the enemy that they had to con-

tend with a formidable foe. The sacrifice then made of our country's best blood on freedom's shrine, gave a sure augury of the successful termination of the contest. The lofty minded and enthusiastic Warren, with all his acquirements and accomplishments, had offered himself a victim in this glorious oblation. As his spirit ascended to heaven, it diffused its heroic influence in every heart.

Amidst the exulting feelings which this dearbought victory of the enemy inspired, our infant army did not fail to profit by the experience they had gained. The advantages of superior discipline in the enemy, were apparent to every one. They made a strong impression on the minds of our officers, and especially on that of our youthful hero. He had already acquired such a knowledge of tactics, that he had been consulted by superior officers on a system of discipline to be introduced into our army. He now applied himself with renewed diligence to this important part of his duty, and he soon acquired a high reputation as a disciplinarian. The corps he commanded were distinguished during the whole war for the superiority of their discipline, evinced by their gallant conduct in battle, and by their regular movements in retreat. He was second only to the celebrated Baron Steuben, in his knowledge of tactics. After this officer joined the army and was appointed inspector-general, we find that Brooks was associated with him in the arduous duty of introducing a uniform system of exercise and manœuvres into the army.

He assisted in fortifying the heights of Dorchester, which compelled the British to evacuate Boston. He was very efficient in the successful retreat from Long Island. He acted a distinguished part in the battle of White Plains; and when the detachment of our army was overpowered by numbers, his regiment, of which he was the most efficient officer, so ably covered the retreat, that it received the distinguished acknowledgments of Gen. Washington, for its gallant conduct.

In the year 1777, he was promoted to the rank of lieutenant-colonel in the eighth Massachusetts regiment, the command of which devolved on him, in consequence of the sickness of the colonel. In the Spring of this year, he was ordered to join the northern army, and he took an active part in those movements and battles which terminated in the surrender of Gen. Burgoyne. In short, the capture of that army may be attributed, in no small degree, to his gallant conduct on the 7th of October, in the battle of Saratoga. You all know, how ably he turned the right of the enemy—with what fearless intrepidity he led on his regiment to storm their intrenchments, entering them at the head of his men with sword in hand, and putting to rout the veteran German troops which defended them—and with what firmness he maintained this post, which he had so gallantly gained, notwithstanding the utmost efforts to dislodge him. This action compelled the enemy to change his position, and the field was then open

for Gen. Gates to surround and capture his whole army.

On the surrender of Burgoyne, Col. Brooks was ordered to join the army under Gen. Washington, and soon after, went into winter quarters at Valley Forge, and in common with the army, suffered all those privations and hardships, which required more heroism to endure, than the most severe and bloody battles. How great are our obligations to those wonderful patriots, whom neither nakedness, nor disease, nor famine, nor the sword could dishearten!

To follow our hero through all his valuable and laborious military services, would be to give a minute history of our revolutionary war; for there was scarcely any important service performed in the northern and central operations of the army, in which he did not act a conspicuous part—To describe these, is the province of the historian—we allude only to those remarkable events which serve to illustrate his character.

At the conclusion of the war, our army had a still more severe ordeal to pass through, than the battles and privations they had endured. It remained for them to subdue their own passions and resentments, and to make this last and most noble sacrifice for the welfare of their country. The pay of the army was greatly in arrear, and most of the officers had spent, in their country's service, all they owned, and all they could borrow. Congress had no adequate funds for their payment, and it was deficient

in the power of creating them. In this deplorable state of things, inflammatory, anonymous letters, were circulated through the army, founded on the most plausible reasons, exciting them to retain their arms, and to take by force, what was due them in right. The apparent justice of this measure, concealed from the unreflecting, the horrid consequences which must have ensued from it. Fortunately for our country, there were many influential officers in the army, of that purity of heart, that soundness of judgment, and elevated patriotism, which led them to view with abhorrence, this fatal expedient; and it is highly honorable to Col. Brooks, that he was among the first who opposed it. He had taken measures to this effect, in his own regiment, before the opinions of Washington were known, and he had the satisfaction of finding that his sentiments were in perfect accordance with those of the Father of his Country. He was honored with his most grateful acknowledgments and full confidence. His brother officers were so strongly impressed with his wisdom and prudence, that he was appointed one of the committee, which finally made an adjustment with Congress, and allayed that dreadful excitement. By the influence of these magnanimous patriots, the army gave this distinguished proof of their devotion to the liberties of their country; and in the language of Washington, we may say, "had this day been wanting, the world had never seen the last stage of perfection to which human nature is capable of attaining."

After the army was disbanded, Col. Brooks returned to private life, rich in the laurels he had won, in the affections of his fellow soldiers and in the esteem of the wise and good. He was not only free from the vices incident to a military life, but, what was remarkable, he had acquired more elevated sentiments of morality and religion. He was received in his native town, with all the kindness, the congratulations and attentions which love and friendship could elicit, or respect inspire. He was rich in honor and glory, but he had nothing to meet the claims of his beloved family, but the caresses of an affectionate heart.

His old friend Dr. Tufts, being infirm and advanced in life, was desirous of relinquishing his practice into the hands of his favorite pupil, whom he thought so worthy of confidence. His fellow townsmen responded to the wishes of his patron. He accordingly recommenced the practice of physic, under the most favorable auspices, in Medford and the neighboring towns. He was soon after elected a fellow of this society, and was one of its most valuable and respected members. On the extension and new organization of the society, in the year 1803, he was elected a counsellor, and continued to discharge the duties of this office, with fidelity, until he was Governor of the Commonwealth. He was then discontinued at his own request. In the year 1808, by the appointment of the board of counsellors, he delivered an anniversary discourse on Pneumonia, which has been published, and evinces

a mind well stored with medical science and correct practical observation.

On his retiring from the chair of state, he was again chosen a counsellor, with the view of electing him President of our society. It is unnecessary for me to expatiate on the pride and satisfaction we derived from his accepting this honor. Your own feelings will best convey to you the height of the honor which he reflected on our society. That he felt a deep interest in our prosperity, we have ample evidence in his so kindly remembering us in his will.*

As a physician he ranked in the first class of practitioners. He possessed in an eminent degree those qualities which were calculated to render him the most useful in his professional labors, and the delight of those to whom he administered relief. His manners were dignified, courteous and benign. He was kind, patient and attentive. His kind offices were peculiarly acceptable from the felicitous manner in which he performed them. His mind was well furnished with scientific and practical knowledge. He was accurate in his investigations, and clear in his discernment. He, therefore, rarely failed in forming a true diagnosis. If he were not so bold and daring as some, in the administration of remedies, it was because his judgment and good sense led him to prefer erring on the side of prudence rather than on that of rashness. He watched the operations of nature, and never interfered, unless it was obvious he could aid and support her. He

*Note C.

was truly, the "Hierophant of nature," studying her mysteries and obeying her oracles.

In his practice, he added dignity to his profession by his elevated and upright conduct. His lofty spirit could not stoop to the empirical arts which are too often adopted to obtain a temporary ascendancy. He soared above the sordid consideration of the property he should accumulate by his professional labors. Like the good and great Boerhaave, he considered the poor his best patients, for God was their paymaster. In short, he was the conscientious, the skillful and the benevolent physician—the grace and ornament of our profession.

His mind, however, was not so exclusively devoted to his professional duties, as to prevent his taking a deep interest in the affairs of state. He had contributed so largely towards establishing the independence of his country, and had exhibited such sincere devotion to its welfare, that his countrymen, who have ever been distinguished for the acuteness of their discernment in judging of public men and measures, were always ready to display their confidence in him. They felt an assurance that they might safely repose on his conscientious integrity, wisdom and patriotism. He was consequently called to fill numerous offices of high importance in the state.

He was for many years, major-general of the militia of his county, and established in his division such excellent discipline, and infused into it such an admirable spirit of emulation, that it was a most bril-

liant example for the militia of the state. In the insurrection of 1786, his division was very efficient in their protection of the courts of justice, and in their support of the government of the state. At this time, Gen. Brooks represented his town in general court, and he gave support to the firm and judicious measures of Gov. Bowdoin for suppressing that alarming rebellion. He was a delegate in the state convention for the adoption of the federal constitution, and was one of its most zealous advocates. After the establishment of the federal government, he was the second marshal appointed by Washington for this district, and afterwards received further evidence of his confidence and approbation, by being appointed inspector of the revenue.* He was successively elected to the senate and executive council of the state. He was appointed by the acute and discriminating Gov. Strong, as his adjutant-general, in that perilous crisis of our affairs, the late war with England. The prudence and discretion with which he discharged this arduous duty, will be long remembered by his grateful countrymen.

These multifarious and laborious public services were performed with so much punctuality and ability, and with such dignity and urbanity, that, on the retirement of Gov. Strong, in the year 1816, wise and discreet legislators from all parts of the commonwealth, selected him as the most suitable candidate for that high and responsible office. It will be recollected, how forcibly every judicious mind was impressed with the excellence of the se-

*Note D.

lection, and how strongly the public suffrages confirmed that opinion. His very name seemed to disarm party spirit with talismanic power; for many, who had never acted with his political friends, prided themselves in testifying their unlimited confidence in him.

It is fresh in your memories, with what trembling apprehensions he shrunk from the lofty attitude of the chair of state, and yet when placed there, with what singular ease and dignity he presided, and with what signal ability he discharged its various important duties. His government was firm and decided, yet it was so mild and gentle, that its influence was chiefly perceptible in his happy facility of allaying party spirit, and all the angry passions of our nature. It was like that of a beloved and revered parent, whom all are disposed to honor and obey.

Amidst these high military and political honors which his fellow citizens took delight in bestowing on him, almost every institution of a literary, religious, patriotic, benevolent or professional character, seemed to vie with each other in conferring their highest honors on him. Harvard University acknowledged the value of his literary acquirements, by conferring on him the degree of A. M., in the year 1787, and in 1816, he received the highest honors of that seminary, the degrees of M. D. and LL. D.

The society of Cincinnati recognised him as one of their most distinguished members. He was elected to deliver the first oration before them on the

4th of July, 1787; and on the death of Gen. Lincoln, their first president, Gen. Brooks was elected to succeed him.

He was a member of the Academy of Arts and Sciences. He was President of the Washington Monument Association, of the Bunker Hill Monument Association, and of the Bible Society of Massachusetts.

Having faithfully and ably discharged the duties of chief magistrate for seven successive years, he expressed his determination to retire from the cares and anxieties of public life. How great were the public regrets, and how gladly would a large majority of his fellow citizens have retained his valuable services; but they forebore urging him to any further sacrifices for the good of his country. He retired to private life with dignity, and with the love and blessings of a grateful people.

Having imperfectly traced the brilliant path of his public career, let us for a moment contemplate Gov. Brooks in his private character; and perhaps we may discover the true source of all his greatness, the charm which bound the hearts of his countrymen to him in ties so strong. He possessed a heart free from all guile, and every inordinate selfish feeling—an evenness of temper and sweetness of disposition. His dicordant passions, for we presume he had them, being human, were kept in complete subjection to his virtues. He had a peculiar composure and complacency of countenance; and the delicacy and courteousness of his manners were uncommonly attractive.

But above all, his conduct was regulated by the influence of that pure morality, derived from our holy religion, which was impressed deeply on his mind, at an early period of life.

To those who contemplate his fearless intrepidity in the field of battle, or have observed the ease and dignity of his deportment on the military parade, or in the chair of state, it may appear incredible that this brave man possessed an uncommon share of diffidence; but to those who have approached him nearly, it is well known that this was a predominant trait in his character. This quality, so rare in little minds, is seldom wanting in great ones; but is scarcely ever so paramount, as it was in our departed friend. It was absolutely necessary to make use of some degree of finesse, to induce him to accept any important office. This great reluctance in assuming responsibility, sometimes arises from inactivity or a love of ease—not so in him we would commemorate, for whatever might be his situation, he never was idle. So imposing is that obtrusive quality which some men possess, and so often does the world yield to its influence, that a diffident, retiring disposition, is often mistaken for deficiency in talent. The bold and daring genius, confident in his own imaginary superiority, who is constantly thrusting himself into public notice, can hardly conceive it possible that any one should possess talents, who does not seek every opportunity to display them; and with reluctance yields assent to their existence in an individual so unlike himself.

The mind of Gov. Brooks was clear in its perceptions, and discriminating in its judgment; it was active, ardent and industrious in the pursuit of every valuable attainment, and powerful in the application of those attainments for the benefit of others. Although his mind shrunk from observation, with the delicate excitability of the sensitive plant, it was like the oak in sustaining the pressure of every duty to his friends or his country.

In his relation to his native town, he completely reversed the maxim, that a prophet has no honor in his own country, for the inhabitants of Medford idolized him. They knew his worth and fully appreciated it. He was truly their friend and benefactor. He took so deep an interest in all their concerns, let their station in life be ever so humble, that they could always approach him with ease and confidence. They referred to him all their disputes, and so judicious were his decisions, that he had the rare felicity to satisfy all parties, and to reconcile them to bonds of amity. It was observed by an eminent lawyer, who resided there, that he had no professional business in Medford, for Gov. Brooks prevented all contentions in the law. In addition to these intrinsic services, he was the grace and the ornament of their social circles, and seemed to fill up the measure of all their enjoyments.

But what avail these noble talents, these splendid achievements or these godlike virtues! The grim messenger of death has swept them from our reach. Our beloved and revered friend, in whom they were

so eminently displayed, now lies a cold and inanimate clod of the valley, "and the places which knew him, shall know him no more for ever." "But thanks be to God, who giveth us the victory!" his spirit has risen to Him who gave it, and his virtues shall remain engraven on our hearts.

NOTES.

NOTE A.

Proceedings of the Counsellors of the Massachusetts Medical Society, on the decease of their President.

At an adjourned meeting of the Counsellors of the Massachusetts Medical Society, held on the second day of March, A. D. 1825,

It was announced by the Vice President, that John Brooks, M. D. LL. D., President of the Society, departed this life yesterday; whereupon, the following resolutions were offered by Dr. Warren:

Resolved, That the Counsellors regard with deep sensibility, the loss, by death, of the late President of the Society, and, that they feel assured they shall express the sentiments of the Society, as they do their own, in stating, that the Society has derived honor from having had, as their head, a man beloved in private life, justly respected in his profession, and distinguished in his state and country, for the faithful and honorable performance of high military and civil duties.

Resolved, That the Counsellors ask permission to attend the obsequies of their late President, both for themselves and the Fellows of the Society.

Resolved, That a Committee of three be appointed to wait on the family of the Hon. John Brooks, to express to them the sentiments of the Counsellors, on this bereavement, and to make the request that the Society may join in the solemnities at the interment of their late President; and, if this permission

be granted, that the same Committee invite the Fellows of the Society to unite with the Counsellors in paying a tribute of respect to the memory of the deceased.

Resolved, That the Anniversary Orator be requested to notice the life and character of our late President, in his address, at the annual meeting of the Society.

Voted, unanimously, to adopt the above resolutions.

Voted, That the Committee consist of Dr.'s Spooner, Warren, and Dixwell.

Voted, That the above resolves be published in the Daily Advertiser, and Boston Patriot of tomorrow, with such additions, as the report of the Committee, may render necessary.

In pursuance of the duty assigned them, the Committee proceeded to Medford, and communicated to the family of their late President, the feelings and wishes of the Counsellors; and were informed, that, although Gov. Brooks had forbidden any ostentatious parade at his funeral, and had left his injunctions that he should be buried in the simple manner of his friends and neighbors, yet he had consented, that, if any Society of which he was a member, should signify a desire to follow his remains to the tomb, his executors should grant them permission; and that he had named, particularly, the Massachusetts Medical Society. The following notice was thereupon published.

The Fellows of the Massachusetts Medical Society are specially requested to attend the funeral of the late Hon. John Brooks, at Medford, this day, at half past 3 o'clock.

WM. SPOONER,

Chairman of the Committee of Counsellors.

March 3d, 1825.

A large number of the Fellows of the Society accordingly attended the funeral solemnities, in conjunction with the Members of several other Societies to which the deceased belonged, and a great concourse of our most distinguished citizens, who united with the afflicted relatives and connexions in testifying their respect for his memory.

NOTE B.

Gov. Brooks married Miss Lucy Smith, of Medford, who died early in life; and he did not marry again. She left one daughter and two sons, who were reared and educated by the father with the greatest parental care and affection. The daughter married the Rev. George Oakley Stewart, of Quebec, and resided there until her decease. She left three children. The sons of Gov. Brooks, Alexander Scammell and John, devoted themselves to the service of their country. The former is a Major in the Artillery of the United States Army, and inherits his paternal estate. He married Miss Sarah Turner, of Boston, and has two children, Lucy and John. The latter was a Lieutenant in the Navy, and died in the midst of victory, heroically fighting for his country in the glorious battle of Lake Erie.

NOTE C.

Gov. Brooks bequeathed to the Massachusetts Medical Society the whole of his medical library, which contains many very valuable works.

NOTE D.

When President Washington visited Massachusetts, in the year 1789, he appeared solicitous to show Gen. Brooks that he held his character in high estimation, and cherished a strong personal regard for him. Among other attentions, he reviewed his Division of the Militia, and expressed the highest approbation of its discipline. And, when he was about to depart for Salem, he requested to take Gen. Brooks' house in his course. This deviation from his direct route, was accordingly made, that he might take leave of his friend and compatriot in arms. We had this narrative from a gentleman who was, at that time, officially, in constant attendance upon President Washington.

ARTICLE V.

A DISSERTATION

ON THE

PROPHYLACTIC MANAGEMENT OF INFANCY AND EARLY CHILDHOOD.

By JOSEPH H. FLINT, M.D.

Read before the Massachusetts Medical Society, at their Annual Meeting, June 7, 1826.

IT has been computed that "one fourth of those who are born die before the age of five years." This disproportioned mortality is usually ascribed to the peculiar "irritability and sensibility" of infancy and early childhood, predisposing it to the ravages of acute diseases.

However plausible, and at first view satisfactory, may be this explanation, it is a fact that the young of all other animals, in a natural state, are comparatively vigorous and healthy. And making every allowance for diseases incident to the hu-

man family alone, still it will be found, I apprehend, that most of the disorders of early life, and many of those which occur at a later period, derive their origin from mismanagement. And just in proportion as the laws of Nature are violated, and her plain and salutary requisitions neglected or disregarded, is this peculiar "irritability and sensibility" fatally developed. It has been justly remarked "that when mismanagement in infancy does not actually destroy life, it often very essentially impairs the health,—the foundation of a future good or bad constitution being frequently laid at this period."

The prophylactic management of infancy and early childhood, consists in a proper regulation of the *dress*, *diet*, and *exercise*.

The skin from its continuous and relative sympathies, may be considered a vital organ. Reflected, it constitutes the mucous membranes; which accounts for its important connexion with the respiratory and digestive functions. And through the medium of the nerves with which it is so largely endowed, it sympathizes relatively with all the other vital organs. As we advance in age the skin becomes more and more firm—but it is not until about the thirtieth year that it acquires its greatest power of resistance to the impression of external stimuli. During this whole period, but more especially in infancy when the cutaneous

susceptibility is the strongest, in so far as the functions of the skin exert an influence on other organs important in the economy of health, an equable excitement should be preserved by a careful adaptation of the dress to the natural succession of seasons, and other causes of injurious excitement which the customs of society have so greatly multiplied.

"If during the greatest part of life the skin be so fruitful a source of disease, and the various alterations it experiences produce so frequent disorders in the internal organs, it is only owing to the varied causes of excitement to which it is every instant subjected." Here allow me to remark that the fashionable attire of the present day gives to the children of opulence no advantage over the "shreds and patches" of poverty. It affords but a scanty protection in their frequent transitions from more than tropical heat to hyperborean cold. It is neither a security against the diseases consequent upon exposure to alternations of heat and cold; nor the still more fatal ones which are the effect in a great measure, of the enervating heats of summer upon the functions of the skin. Unguarded exposure to cold when the body is heated—or to heat when it is chilled—induce diseases with which we all are familiar, and so speedily as to leave no room to doubt their cause. The cholera of India, on the other hand,

to which our infantile diseases of the summer months, usually attributed to irregularities and indiscretions in diet, are somewhat analogous, affords the strongest exemplification of the effect of continued heat on the functions of the skin and internal organs sympathizing with it. The European who retreats from the scorching rays of a tropical sun to seek repose under his net in the shade, falls a victim to disease; while the native Hindoo who toils all the day, owes his comparative immunity, not so much to a constitution framed to the climate, as to his frequent ablutions and daily inunctions of rancid oil. And though the one be a religious rite, and the other an expedient to protect him from swarms of insects, they both combine to preserve an equable excitement in the vessels of the skin. And were it not that his ingenuity has supplied this latter substitute, mosquitoes and cock-roaches would be as well entitled to his homage as the consecrated waters of the Ganges.

The sustenance of the infant for nearly the first year of its life should be drawn exclusively from its mother. This is nature's provision; and ordinarily the supply is commensurate to the demand; and for this no artificial combination is an adequate substitute. Nature, too, has wisely placed this secretion beyond the influence of ordinary indisposition; and though there are instances of

real, constitutional inability, a *mother*, generally speaking, is competent to perform the kindly offices of *nurse*. Happily our country women, with but few exceptions, have not arrived at that maximum of refinement which prompts them to alienate their children. And if there be living a female who can unnecessarily and most unnaturally resolve to relinquish the important duties, and to forego the endearing pleasures of a mother, and to abandon her helpless offspring to the carelessness and cupidity of an hireling,

> "Hear, nature, hear! suspend thy purpose, if
> Thou did'st intend to make this creature fruitful.
> Into her womb convey sterility!
> Dry up in her the organs of increase,
> And from her derogate body never spring
> A babe to honor her."

At the period of ablactation it is only necessary to avoid great and sudden changes in diet. The digestion of the child is rapid, and its calls for food consequently frequent; and so it be but plain and bland, indulgence may be safely allowed.—Nature unhackneyed seldom errs in her demands; and if the appetite is not pampered, no limits need be set to time or quantity in its gratification.—Contrast, now, these plain and obviously natural rules with the practices which too generally prevail in the management of infancy. 'Sanis omnia sana,' would seem to be an adopted axiom; and a

most pernicious one it is. From the moment of birth up to the period we are considering, the wailings of infancy are quieted with diffusibles—its clamors are hushed by epicurean indulgencies—and its very smiles are purchased by an enormous tax to the confectioner. Hence follows a long train of functional disorders of the digestive organs, by which, if life is not destroyed, the growth is checked; the constitution is impaired; and very frequently structural disease is superinduced which no art afterwards can remedy; and hence, too, by reverse sympathy, springs a tribe of eruptive diseases so loathsome and so common to early life.

Nor do the evils of early mismanagement in relation to diet stop here. The moralist would follow up consequences to a later period, and tell you that tastes and appetites, vitiated and depraved in the cradle, go on step by step, from year to year, until they terminate, at length, in that most odious, degrading and disgusting of all vices,—in our country "the pestilence that walketh by noonday"—beastly inebriety.

The health of the infant depends on the equable evolution and perfect integrity of its several organs—to which exercise of body, both passive and active, greatly conduces. In the first months of existence it must necessarily be passive; but when locomotion is acquired it may well be left

to the buoyancy of infant feeling. The gambols of childhood should be rarely repressed—and when properly clothed and properly fed, it will brave with comparative impunity the most inclement seasons. When situation or circumstances forbid the indulgence of active exercises abroad, the shower-bath, the bathing-tub, and the flesh-brush at home will almost compensate for the deprivation.

"Certain physical and moral differences that present themselves in man, and which depend on the diversity of the proportions and connexion between the parts forming their organization, as well as the different degrees of energy relative to certain organs," have been fancifully named by Physiologists—Temperaments. A knowledge of the differences or "peculiar dispositions of the body with which we are *born*, is of little practical value; as by education, manner of living, climate, or acquired habits, they become altered or totally changed." "Man never remains in a state of nature, being acted on by every surrounding body; his physical qualities, therefore, if observed at distant periods of life, present as many differences as his moral or intellectual character."

By another physiological subtlety, this generic name, which is made to imply a constitutional liability to a certain *cast* of diseases, has undergone a subdivision, and hereditary predisposition

to disease from peculiar individual organization is called Idiosyncracy. The opinion I am aware very generally obtains that diseases are propagated from parents to their offspring; and to a certain extent it cannot, perhaps, be denied. But reasons enough do exist to justify a suspicion at least that idiosyncracy is often but another name for *habit*.

The arthritic entails the gout upon his heir—but it may be by bequeathing with his wealth the very errors of physical education that engendered the disease in his own person. There is a concurrence, too, of all authority in the remark, that, now and then, a generation springs up among the most predisposed that enjoys a perfect immunity from disease; and which might be traced, possibly, either to the wisdom that devised or the necessity which enforced an improvement in physical education.

The fearful increase of pulmonary consumption, a disease which Pathologists have identified with scrophula, gives to this subject additional interest. I speak not of diseases often confounded with consumption, whose cure has inspired the ignorant with confidence and given to a thousand nostrums an ephemeral celebrity;—but whoever has watched the insidious approach of tubercular phthisis to its developement upon the lungs—and who of you has not?—and has experienced, too,

the utter hopelessness and insufficiency of all means afterwards—I will not say to a cure, but to arrest or even retard its downward progress—will unite in the opinion that if a remedy is yet to be found it must be sought in prevention.

A history of this disease with the various and opposite modes of treatment which have at different times been adopted, is foreign to my purpose. It is enough that all have resulted in disappointment and discomfiture; and in the strong language of a frank and fearless writer, "let us no longer deceive mankind—let us candidly acknowledge that there are diseases which cannot be cured. Were this generous confession universally made, the world would more earnestly adopt preventive measures. So long as we promulgate opposite doctrines we are no better than empirics; we are destitute of honor—of humanity."

In latitudes of equable temperature, whether of heat or cold, consumption is almost unknown. It is equally a stranger to the mild skies of Italy, and to the perpetual snows and frosts of the Arctic regions; but in our variable climate it is a monster, whose terrific strides are yet unchecked, and who riots unrestrained in our best blood.

Independently of hereditary predisposition, the same causes which at one period of life produce scrophula, are the proximate ones of consumption at another. Among the most prominent of these

is unguarded exposure to the vicissitudes of the seasons; to which may be added dietetic mismanagement. The first effects are—in infancy, functional disorders of the digestive organs—at a later period, enlargement of the glands—and at a still later, when one train of sympathies have become blunted and new ones excited, turbercular phthisis, which is indeed but the sequel of scrophula—its last fatal stage—the assurance that the foundations of life are irremediably sapped.

Eruptions, suddenly repelled, are not an infrequent cause of consumption; and of the vast multitude and variety of remedial means which have, at different times, engaged the attention of the medical world, all are buried with the Capulets, except they be such only as tend to procure and perpetuate an equable excitement of the vessels of the skin, and a healthy performance of the functions of the digestive organs.

Taking into view then, the latitudes in which alone this disease so fatally prevails—its causes—the inadequacy to a cure of all means yet employed—its connexion with scrophula, and its almost certain incurability—instead of searching farther the face of the earth and exploring its very bowels, for remedies which will probably never be found, or instituting anew experiments which will but too surely end in bitter disappointment—is it not time, and does not humanity require it, that the

attention be given earnestly to preventive measures? And these, permit me to suggest, consist in an early adoption of the prophylactic management to which I have taken the liberty to invite your attention.

"Mens sana in corpore sano," is not an unmeaning apothegm. It is not my intention to agitate the question of the "mysterious incomprehensible union of mind and matter," nor whether the quantum of intellectual power depends on the length of the facial angle, or a protuberance, more or less, of the skull. I leave the discussion of these questions to Theologists and Craniologists. It is sufficient for my purpose that the physical and intellectual man are intimately united; that they mutually act and react on one another. From its first dawnings in infancy the mind is gradually unfolded as the physical organs are developed. "It grows with our growth, and strengthens with our strength." A disturbance of the functions of the body deranges the faculties of the mind;* and so far as we know, the decay and death of the one, is the extinction of the other. Do not misunderstand me—I speak with reference to human life; and I would not shake the hopes which spring from a conviction of the soul's immortality. On

* The humorous author of Tristram Shandy, has likened the connexion of soul and body, "to a jerkin and a jerkin's lining—rumple one, and you rumple the other."

the contrary, by physical culture and discipline, I would give to the mind augmented power and a wider range; and thereby not only fit it the better for the great and varied demands of this life, but prepare it, perhaps, for higher and nobler enjoyment in another.

Every departure from health is marked by a proportionate affection of mind. Acute diseases suddenly paralyze the most gigantic powers. It is recorded of one renowned for valor in the field, and wisdom in the senate, and eloquence in the forum—of one "who could employ, at the same time, his ears to listen, his eyes to read, his hands to write, and his mind to dictate"—who in the turmoil of a camp found time to compose his volume of commentaries, "which has always been admired for the elegance as well as correctness of its style," that he

> "Had a fever when he was in Spain,
> And when the fit was on him,
> That tongue of his that bade the Romans
> Mark him and write his speeches in their books,
> Alas! it cried, '*Give me some drink Titinius,*'
> As a sick girl."

Mental alienations of every shade, from lowness of spirits to despondency and madness, are but so many symptoms of physical disease, which has acquired, by a ready process of medical amalgamation, the indiscriminate appellation of chronic.

Of this numerous class of diseases, by far the greater proportion derive their origin from some error in physical management; and our boasted improvements in this department of medicine, great as they really are, do not consist so much in researches and speculations which have led to the discovery and employment of *new medicines*, as to the adoption of more *correct principles*, and the rigid enforcement of a better *physical* and *moral* treatment.

It were a curious and interesting inquiry how far the stormy and corroding passions, which disturb domestic tranquillity, disquiet neighborhoods, and sometimes convulse nations, might be traced to the operations of physical disease.

Peter the hermit, who incited the powers of Europe to the bootless attempt to plant the standard of the cross, through *slaughter* and *blood*, on the empire of the crescent, was "mad, at least, north, north-west;" and his fanaticism, I doubt not, would have yielded readily to hellebore and a straight-jacket.

Nor would it be difficult, I conceive, to account for the astonishing changes in individual character on the hypothesis of deranged physical organization. Who would recognise in the exiled driveller of St. Helena that *master spirit*, who but a few months before led the Imperial eagles of France, through every obstacle, into the very heart of the

Russian empire? And may not his cowardly abandonment of the half-famished remnant of his troops —his indecision at Waterloo—and the subsequent surrender of his person to his most implacable foe, be attributed to a *spirit broken down* by that cruel disease which ultimately terminated his life?

Examples are not wanting to shew that if the mind is not the offspring of physical organization it often derives from it the bias and direction of its powers. The history of the illiterate, demi-savage of Sweden, whose vast projects were equalled only by the extraordinary ability with which he executed them—one whom no labors could tire and no dangers appal—whose whole soul was engrossed by a single passion—and who in the prosecution of his mad schemes of conquest regarded with equal indifference the robe of the grand Vizier, and the thunder of his master's cannon—affords a strong illustration of the influence which an '*iron body*' exerts over the energies of the mind.*

But military prowess and audacious courage are not the only fruits of the rigid fibre of health. Imagination has soared to its highest flights; and the richest inspirations of poetry and song have been caught in the school where Cincinnatus

* If it be said that Charles XII. was a madman, it will not be denied that he evinced a constancy—a "method in his madness," which might shame the sanity of later times.

learned the art of war. And for the most important discoveries in science, and most valuable improvements in the arts, we are indebted, not to the starts of a sickly or precocious intellect, but to the steady, persevering industry of hardy, plodding genius. In our own profession, the unparalleled labors of one man are a proud proof of how much may be accomplished with few advantages but native vigor and untiring zeal; and how justly have his discoveries and improvements in the medical art, immortalized the name of JOHN HUNTER.

There was much of wisdom and forecast in the decision of that monarch who made the possession of *good health* an indispensable prerequisite to a participation in his councils.

You will not understand me to intimate that debility of body necessarily implies hebetude of mind; on the contrary, by strong voluntary effort, the spirit of the invalid will, now and then, "burst its cerements" with overwhelming power; but the exertion is certain to be succeeded by a most painful collapse, and the "crazy tenement" invariably demands repose to rally for every succeeding mental effort—and if, through the clouds of disease which perpetually overhang it, the mind can occasionally emit a *brilliant spark*, what think you would have been its *steady blaze*, sustained and invigorated in its exertions by sturdy health?

Unhappily, for want of physical energy, the mind

is too often goaded into exercise by unnatural and deadly substitutes. "Drink gin," said one who has been called the first poet of his age, "it is the source of all my inspiration." And I ask you—do not his productions, *sometimes*, smack *strongly* of the *spirit* that inspired them?

Physical culture is to the body what moral culture is to the mind. At no very distant period—and perhaps within the recollection of some of you—the elements of an early education were derived from the study of the Bible and the Assembly's Catechism. The philosophy of the human mind is now better understood; and instead of putting into the hands of lisping infancy a volume which the most mature minds have failed to reconcile—or another which sets explanation at defiance altogether—the gradually unfolding powers of the mind are fed, from time to time, with the kind of aliment best adapted to their capacity for intellectual assimilation.* The mind's dependence, too, on a healthy physical organization, is beginning to be more justly appreciated; and it is not uncommon at this time to find a Gymnasium attached to our best modern literary institutions.

* The great truths and moral precepts of the Bible cannot be too early inculcated; but where so much is mysterious, and some portions so confessedly improper to be presented to the young mind—though we respect the pious motives of our Fathers,—we may be allowed to distrust their wisdom in having made it an elementary book. And is it not to be feared, moreover, that if the young are permitted to treat with rude familiarity the oracles of God, it may have an effect to lessen those emotions of deep reverence which that sacred volume ought to inspire?

To complete the reform it is necessary to carry back these principles to the nursery and the cradle, and rescue the tender period of infancy and childhood,—when body and mind may be moulded almost to the will, from the trammels of fashion and caprice—from the vulgar traditions and cabalistic charms of the ancient Sibyls. Nor does the accomplishment of this object present any insuperable difficulty. The world needs but to know the value and importance of these principles to adopt them earnestly and zealously. And information and instruction of this kind, coming from the medical man to his patrons, will not be the most likely to be disregarded or contemned.

It is, I am persuaded, from prophylactic medicine generally,—and its application to early life particularly,—"we must expect the future improvement of our profession—not from the addition of new medicines to a catalogue already too long—not from fresh accessions to that mass of clinical observations which lie unread on the shelves of our medical libraries." And though with Paracelsus, we may not hope to train our children to triumph over death; by assiduous care and well directed efforts in physical and moral culture—by blending in their education the physical vigor of Sparta, with the intellectual refinement of Athens, we can fit them to discharge with ability the high duties, and to endure with dignity the inevitable ills, of life.

ARTICLE VI.

A DISSERTATION,

READ BEFORE THE

Massachusetts Medical Society

AT THEIR

ANNUAL MEETING, JUNE 6, 1827.

BY NATHANIEL MILLER, M.D.

GENTLEMEN,

I HAVE been much perplexed in selecting a subject of discussion for the present occasion. But anticipating that something in relation to Surgery might be expected, and always happy to gratify the wishes of this society, I have taken a branch of that noble art for a few practical and experimental remarks.

It is, however, very difficult to find a distinct topic, which has not been thoroughly investigated, described and treated with accuracy by the most eminent, scientific and practical surgeons. I have feared that it might be considered presumption for

one who has enjoyed only the comparatively few anatomical facilities which the interior affords, to attempt to throw any additional light upon subjects which have received the minute attention of so many learned and practical minds.

I had contemplated confining myself to some practical remarks upon *the nice and beautiful operation for the cataract.* This subject has been very minutely investigated by eminent men, who have endeavoured to point out the best method of restoring sight to the unfortunate sufferers from this complaint. Yet this very important branch of the surgical art is still enveloped in darkness and great uncertainty; and the young and inexperienced practitioner is left to adopt that mode, which his own discretion, or that of his capricious instructor, may dictate.

By one, we are informed that removing the opaque lens wholly from the eye, through the pupil, is the best method of relieving the difficulty. Another, with perhaps equal experience and sincerity, will tell you that pressing down the lens from its nidus is the better mode; whilst a third asserts, with unbounded confidence, that only *poking* and lacerating the sight of the eye is the most humane and successful—thus leaving this delicate organ, with the vague expectation, that the inherent powers of kind nature will lend their aid, to give success to the uncertain procedure.

I was formerly much engaged in the operation for Cataract. In May and June 1798, I operated on twenty-one eyes *by extraction.* All received sight, save one, in the course of three and six weeks. As far as our present knowledge extends, I am decidedly in favor of this mode of operating. I presume, however, that I should gain but few proselytes to my belief among those who have commenced practise, and made themselves familiar with other methods. The assurance which long experience has furnished me, might be imputed to my peculiar prejudices; and to that unfounded preference, which often arises from the long and exclusive practise of any particular method of treatment. I therefore leave this subject of inquiry, being well assured that, at no distant period, a mode of operating, different from any now in use, will be the received one, embracing more the objects of the operation without its present difficulties; and that the result will be attended by less pain and far more success.

The subsequent remarks will be confined to the principal objects of this discourse, viz. *to illustrate the importance, and direct the manner of detecting deep seated matter.*

As far as I have been acquainted with surgery, a knowledge of detecting deep seated matter, concealed in various parts of the body, whether in tumours, swellings, or otherwise, is of the first impor-

tance; nay, the very first lesson to be taught, and understood, in our profession.

A great proportion of the strictly surgical cases presented to us, either for advice or treatment, involve, in fact, this question of matter; and a right understanding of this directs the prognosis and cure. A knowledge of this subject lays the foundation of a practice, which, in a multitude of instances, will alone guide you, in safety, to the restoration of your patient.

The labours of Benjamin Bell (more, perhaps, than those of any other man) have been the means of exploding many of the barbarous practices formerly in vogue in this country. Speaking, in his system of surgery, upon collections of matter, he says, "this is a circumstance of much importance in practice, and deserves, it may be remembered, more attention than is commonly given to it. In no part of a surgeon's employment, is experience in former similar cases, of more use to him than in the present; and however simple it may appear, yet nothing, it is certain, more readily distinguishes a man of observation and extensive practice, than his being able easily to detect deep seated matter. While nothing, on the contrary, so materially affects the character of a surgeon as his having, in such cases, given an inaccurate or unjust prognosis; for the event in disorders of this kind comes generally at last, to be clearly demonstrated to all con-

cerned." Again he says, "abscesses too, on any of the joints, or upon either of the large cavities of the breast or abdomen, and more especially when they seem to run deep, should always be opened as soon as the least fluctuation of matter is discovered."

Baron Boyer, in his able Treatise on surgical diseases, strongly admonishes to a watchful attendance on abscesses, when they are near an organ, surrounded by a great quantity of cellular substance, as the lower extremity of the rectum. If we waited to open such an abscess, for a total solution of all the inflamed parts, the intestines would become denuded to a great extent, and their union with the adjoining parts would be difficult. By their pressure sometimes on the urethra they will cause a retention of the urine and death; in parts also which are immediately concerned in the natural functions of life as in the parotids, preventing a free return of blood from the head to the heart—on the anterior part of the neck preventing respiration and deglutition, &c.

I will now, Gentlemen, briefly mention the general symptoms, as they are laid down in our standard works, and the directions therein given for detecting matter; then close with a few critical remarks, and with directions on this subject.

The directions of the authorities for the discovery of matter may be summed up in these few words;

—where there is a remission of the inflamatory action, if the tumour be soft in the middle and pointed, there is no doubt that pus is in the tumour. My object is not to dwell at all on cases of this kind, in which even a nurse or any bystander may see matter through the skin. They then go on to tell us—"if the matter is deeply seated in the interstices of the muscles, and beneath strong aponeuroses, it is then difficult to ascertain its presence; and thus it has remained a long time undiscovered."

These are the cases to which I wish to draw your attention, and to show that under such circumstances the existence of matter may with certainty be determined. It is true that the general and local symptoms of abscesses are to be kept perfectly in view in relation to the discovery of deep seated matter. They are guides and tokens which will lead us to a strict examination of the swelling.

Since the importance of being able to detect deep seated matter is, as we have seen, so strongly inculcated, it is matter of no small astonishment that so few hints and directions have been given by gentlemen of experience and ability in this department of surgery. A volume ought to have been written upon this particular subject, possessing the good sense and discrimination of a Pott, and the lively imagination and boldness of John Bell. Considering the very slight directions which are given

us to lead our inquiries after deep seated matter, it is not strange that young surgeons and physicians meet with so many embarrassments, difficulties, and disappointments in this branch of practice. That such is the fact, the experience and observation of thirty years has taught me. If I can throw any additional light upon this point, I shall not regret this effort, nor the embarrassment which I feel in addressing you.

My method of detecting deep seated matter is by *the touch*—not by the fingers, but with the thumbs. In feeling for matter deeply seated, under large muscles, it is absolutely necessary that a considerably heavy pressure should be applied, when the quantity of matter is small. A light pressure will not produce the required result. This fact is an important one, and should be constantly borne in mind. The fingers, from their length, are not fitted to support a sufficient pressure for the purpose. The thumbs must be brought into action in order to sustain the necessary resistance, and they are sufficiently strong for this purpose. From their situation in the hand they can also be more firmly and steadily supported than the fingers, which is of great consequence in this examination. In examining a large limb your hands and fingers will naturally embrace both sides, and thus afford a fine and steady support to the thumbs when brought

upon the spot were you propose to feel for the matter.

In order to illustrate the truth of these remarks, I will suppose a case of common occurrence in business. Circumstances may lead you to suspect deep seated matter in the fore part of the thigh. On the spot where you intend to examine for matter, place your thumbs, steadily supported by your hands and fingers, placed on each side of the thigh. Having brought the thumbs nearly into contact with each other, (as Sir Astley Cooper recommends to bring the fingers) you will begin by pressing with them very gradually, gently and perpendicularly—by degrees increasing the pressure with both thumbs. Now let one thumb fall with considerable more pressure, the other remaining firm and stationary; now and then resuming the pressure with increased power. In the cases of which we are treating, viz. where the quantity of matter is *small and deep seated*, it will be proper to move your thumbs, from time to time, more apart, then approximating them, until you discover the fluid, which will be announced by a *gentle rising* under your stationary thumb. On discovering this feeling, you have positive assurance that there is matter under the point where the rising is felt. Some call this feeling a fluctuation or undulation. I have never experienced that sensation in the case of

small and deep seated collections. It is the *rising* alone under my thumb that I depend upon.

If you have any doubts existing of this distinct elevation, pass your thumbs off to a point at a little distance; there make the same examination in the same careful manner, and if in this place there is no matter, you will not perceive the rising, but the flesh will feel more solid, and unelastic. Then remove your thumbs, and, placing them in the same situation as at first, if you feel the same rising, the question is placed beyond all doubt. Fingers will not do this—thumbs will.

Having ascertained this fact, if you should be of opinion that good practice requires an opening, place your scalpel upon the spot, carry your incision down through the thick muscles, and even to the bone, unless you meet the enemy on the way. There you will find a cavity and a fluid, though there may not be more than a table-spoonful! This I have frequently seen in practice, and have never opened under such circumstances and been disappointed. My thumbs have never deceived me. When the operator has not possessed the confidence which the method I have attempted to describe will give, I have known him to commence an opening, and not finding matter, but muscles, to abandon the search—the matter subsequently finding its own way out, to the no small disappointment of the patient, and the faculty.

Having recommended strong pressure when the matter lies deep, the question may naturally arise, how can you use strong pressure where the parts are very tender? This is a difficulty, and a very embarrassing one to young practitioners. It may, however, be surmounted, sufficiently for *manual examination;* and this, such as I have endeavoured to describe it, is absolutely necessary to success; you cannot succeed without it.

I will adduce, for an instance, a patient twelve years old, who has suffered from a local swelling, and an inflammation of the thigh. The limb is sore; pain is occasioned by the slightest touch; and the patient has, by confinement, become restless and peevish. The general and local symptoms denote deep suppuration. The swelling is uniform around the limb. Suspicions arise that there may be matter in the interstices of the muscles, or on the bone. How shall we be able to detect matter by the touch? How can we apply a sufficiently heavy pressure, where the parts are so sensible of pain?

Begin very lightly, and rather carelessly, to apply your fingers to the limb, at a little distance from the sore part, passing them about from place to place as if in search of matter, but being cautious not to touch the sore parts, until the patient gets a little familiar with you, and finds that you do not hurt him. By this management he will get over

the alarm, and then you may advance slowly to the sore place, and you will soon be able to place your thumbs over the part where you may suspect the matter to lie. Wonderful as it may seem, it is nevertheless a fact that if the thumbs are kept steadily upon the spot, with gently increased pressure, the little patient will remain still, and without much complaint yield to a proper examination.

It is very important, when you are feeling for deep seated matter in small quantities, that the patient should be as still as possible. Only the agitation of the system which arises from crying out is an hindrance to the perfect feeling of the fluid. This fact I have often noticed. In very nice cases of detecting matter, I have thought I could feel the fluid with more accuracy, when a room was perfectly still, and no voice to be heard.

Another case of abscess, which frequently eludes the researches of the practitioner, is where a patient is attacked with pain and lameness in the upper part of the thigh, and with general inflammatory symptoms. The limb swells, and the complaint is pronounced rheumatism. Upon this diagnosis the patient is treated with the usual remedies for inflammatory rheumatism. A crisis is supposed to have taken place in three or four weeks, from the remission of general and local symptoms. The pain abates; the swelling is lessened; the appetite improves; and the patient is thought to be in a convalescent state.

At the expiration of three or four weeks more the swelling of the thigh is, perhaps, somewhat diminished, and no pain exists unless an attempt is made to move the limb. Although the appetite of the patient is pretty good, there is a wasting of flesh, and he has a hectic countenance. His friends and the physician now have fearful apprehensions of a decline, and a consultation is called. This is not an unfrequent case in my practice.

Upon general principles we might conclude that a solution had taken place. In this rather easy situation it had remained gradually undermining the health of the patient.

When he is introduced to us, and the limb is presented for examination, the swelling is uniform, and the skin of a natural appearance. The examination should be commenced by the touch, at each extremity of the thigh; and by approximating the hands slowly, and feeling with some firmness, and frequently asking the patient if he feels any soreness. Proceed in the same manner, and advance nearer to the centre, asking the same question, until he says that you hurt him. Continuing the pressure still further, you will find *a margin of tenderness*, which may be three or four inches in diameter. Here then is the spot to which your attention will be drawn. The parts not being very sensible, you can make the pressure required to feel the fluid. The first process of the examination

cannot be dispensed with, as you have at first no guide to the spot; but having discovered this line of demarcation, which is seldom wanting in these cases, your attention is concentrated upon the small circle in which you feel. Now if the matter is in the deep interstices of the muscles, or even at the bone, and that in a small quantity, you will most assuredly discover it, by managing the thumbs as I have directed. The gentle elevation is felt with the stationary thumb, while you press firmly with the other, having all still around.

If it is determined to evacuate the matter, it would be well, if there is cause to believe that the quantity is small, to mark the point with ink before your thumbs are removed; otherwise if you should remove your eyes and thumbs for a moment from the limb, and place the scalpel but a small distance from the spot where the elevation is designated, you might be led by the cavity, which would occasion great embarrassment and confusion. In such cases I always mark the centre of the spot in which the touch gives assurance of the presence of matter—I then proceed with coolness and determination, and as I before remarked, I have never been disappointed.

There is one circumstance which might prove a source of deception. On applying the thumbs over the belly of a single muscle, thinly covered with cellular substance, without considering its anatomi-

cal structure, you might mistake the sensation arising from a pressure of it for the rising of a fluid. If you fix them transversely to the fibres, the feeling so much resembles that of a fluid that, in some instances, there would be danger of deception. Attention to this hint will cause a distinction to be noticed. But if you place them longitudinally with the fibres of the muscles, and press perpendicularly, the sensation will not be experienced.

This subject of deep seated matter applies with almost equal importance to the whole class and variety of tumours. What tumour is there, presented to us for examination, which does not involve the question of its contents; and particularly, whether it contains a fluid or not? A correct decision of this question, in most cases, determines the character of the complaint. It constitutes the business of our profession to make that distinction, which is the only basis on which we can with confidence prescribe.

In a case of swollen scrotum, there may arise three questions—whether it be Hernia, Schirrus, or Hydrocele; for the external appearances may be very similar in all these complaints. There is no way of distinguishing these very different diseases, except by the symptoms and *touch*. Suppose you decide that it is Hydrocele, when it is either Hernia or Schirrus, and pass a trocar into it—how unpleasant the mistake! I have more than once

been called to operate for Hernia, and upon examination discovered that the tumours contained pus. They were opened, and the patients did well.

One further observation will conclude these remarks. Within a few years three female patients have been sent to me for the extirpation of their breasts. On minute examination I found that the tumours contained a fluid. They were situated in the centre of the breast, and rather under the glands, which gave them a formidable appearance. On making an incision down to the tumours, they were found to be sacculated, and were healed in a few days by adhesive inflammation.

It would have been very unkind, through inattention to the true nature of the complaint, to have subjected these young ladies to painful operations; and what would have been more to be regretted, to have lost those useful and beautiful organs.

ARTICLE VII.

A DISSERTATION

ON THE

UNCERTAINTY OF THE HEALING ART.

By GEORGE CHEYNE SHATTUCK, M. D.

Read before the Massachusetts Medical Society, at their Annual Meeting, June 4, 1828

The Massachusetts Medical Society was organized, that individual feebleness might be sustained by associated strength ; that the retreat of self-love and private interest might be occupied by a laudable *esprit du corps ;* that Ishmael might feel the touch of a brother's love ; that physicians, by the interchange of experience, might more successfully oppose the inroads of death.

The Fellows of this Society meet like neighbours, somewhat removed. Neighbours, a little removed, on coming together, usually fall into discourse on some topic within the compass of their common trials. The trials of the physician are numerous.

On the commencement of his career the lowering indignation on him of his neighbourhood as casting the

shadow of the Doctor without his healing power, is a bitter trial. This he patiently bears, because he knows full well that time is a sure remedy.

"The horrors of nothing to do," which resemble the death-bed pangs of the Pagan, "the horror of sinking into nought," summon into exercise his firmest principles. "Hope deferred maketh the heart sick." Like a good soldier, if he stand at his post through these withering shocks, *active* trials follow *passive*. The siege raised, and famine survived, the extension of practice extends his trials. He now braves the midnight tempest, and the pestilence, which wasteth at noonday. But all these trials to which the physician is subjected, do not equal that which proceeds from the *uncertainty of the healing art*.

The charitable attention, and forbearance, and forgiveness of the Fellows of the Massachusetts Medical Society, are therefore now solicited, while a feeble attempt is made briefly to discuss this grave subject.

Why is the healing art uncertain? Its administrators are less tinctured with credulity than other men, they more confide for their creed in the direct revelation to their own senses. The eye may deceive, the ear may deceive, the senses of smell and taste may deceive, but none doubt the evidence of touch.

Even the doubting disciple yielded up all scruple on touching the prints of the nails in his blessed Master's person!

Touch does not approach *vitality*. Life is uncertain. In its journey onward by the human family, the Faculty are posted as centinels to sustain, by all the

invigorating agents within reach, the drooping ones, who are threatened with faintness by the way.

Still according to a bill of mortality formed by Simpson for the City of London, more than half who are born, die within the first three years. Less than one in eighteen arrives at the common age of man, i. e. threescore and ten. Dr. Halley's table on the bills of mortality at Breslau, presents a different result. Different bills of mortality at different places present results still varied. All agree in the great proportional mortality during infancy.

Is this disastrous result chargeable to the faculty? God forbid! The astronomer reads, in the starry heavens, duration. The physician reads in the microcosm, man, perishableness. Were we to leave, in the solution of this great question, the *fiat* of the Creator, and to speculate on secondary physical causes, it might be added, that old age is engraven on all ages in the decay from a minute to a century—from the first gasp to the last gasp of life; i. e. the mortal machine may exhibit the incapacity longer to endure the action of vitality. The perfect child is a rare occurrence, as well as that of the perfect man. The imperfection may not be stamped on the external form, and still exist in the internal organs. The *lusus naturæ* is not taken into the account. That is preserved in the cabinet of the curious only, as the marvel that erring nature is sometimes sportive in her productions. The principle of vitality is variously imparted to the different members of the human family. The well organized, the

strong, and those carefully provided for, alone abide the season of trial. But the wasting epidemic often carries off the beautiful, the apparently robust, and those kindly cared for.

It sometimes occurs that the very atmosphere of a district may contain poisonous or pestilential vapours, which destroy all who breathe them. This again refers to the great Moral First Cause, whose overruling providence, experience teaches, sustains us in all our out-goings and in-comings. But to return to the secondary physical causes of the great relative mortality among children, *original sin* stands revealed in all its hideous deformity. The "*sour grapes*," which the fathers have eaten, ferment in the children's blood. "The wages of sin is death." All indiscretions in parents, which diminish their power enfeeble their offspring, and accelerate their march to an early grave. Accidents and casualities to heedless and neglected childhood swell the catalogue of secondary causes. The uncertainty of human life to all ages, has the concurrent testimony of common experience and holy writ, which, as history and observation, present us with the monuments of human destiny in the arrangement of the grave, "without any order."

If human life be uncertain, no wonder that the healing art, which is to prolong that life, should also be uncertain.

The strength of the human constitution is not the subject of calculation. The various agents, which are destined unequally to act on that constitution are equally without calculation.

The truth therefore can never be ascertained, but may be neared by approximation. The general uncertainty of human life, the particular uncertainty of the individual constitution, and the uncertain casualities which may way-lay that life in its course, all admitted, does it follow, that the general means of preserving life are uncertain? Are shelter, and food, and raiment of equivocal utility? To all the arts of life, which minister to human comfort, experience and common sense have assigned their just value, and the common experience of mankind is neither to be gainsaid, nor resisted.

The natural history of a healthy man from birth to death is as susceptible of register as the tonnage of a ship. Nature in course according to the philosophy of Lord Bacon is readily to be traced, while her wanderings, which constitute exceptions to her general laws, involve her interpreters in a labyrinth. Health, the accompaniment of nature in her uninterrupted free course, is seen and felt, and known by all. Disease, the opposite to health, is the accompaniment of nature in her wanderings, and perplexes her interpreters in all their efforts at comprehension as well as description.

Let a master spirit on Hygiene proclaim that man is a breathing animal, and that a pure, genially attempered, and changeable atmosphere is essential to the maintenance of life and health, and all the world will understand him; and all violators of this simple law of nature, whether a judge on the bench, a mechanic in his workshop, or a traveller in his dormitory, will pay the penalty of transgression by the pangs of disease.

Introduce the physician to cure the disease; anxiety is on his brow, perplexity in his thoughts, indecision in his course. After careful examination and due deliberation, he acts, because, whether he be christian or pagan, he well knows continuing to doubt, will be to lose both patient and reputation.

The alternation between feeding and fasting, between shelter and exposure, between labour and repose, and the change of raiment with the change of weather and season, are equally comprehensible as important, and even essential in the maintenance of life and health. Habitual departure from the maxims of common experience, in the wholesome changes with changing condition, circumstances, and seasons, in conformity to the simple laws of nature, entails disease on the transgressor. Disease again presents nature in her wanderings, and she is difficultly followed. The origin and seat of disease are often investigated with the extremest difficulty. The selection, and adaptation of the force of the remedy to the severity of the disease involve nicety in the skill and judgment beyond the reach of human power.

The uncertainty of the healing art has almost a withering influence on the practitioner, when he beholds friends and kindred, neighbours and strangers, glancing on him imploring looks, mixed with confidence, for relief, to which he feels his art is inadequate. Is medicine then to be abandoned to empiricks, because it is uncertain and difficult? The merchant and underwriter, because the navigation is difficult and

uncertain, do not commit the ship to the untaught and inexperienced pilot. The more perilous the voyage, the higher skill and experience and the more science, are concentrated in the commander. Medicine, from its difficulty and uncertainty, demands deeper preparation.

Are not the records of the Faculty so many charts by which the junior practitioner may safely steer his course?

The entire catalogue of human suffering has been made out, and the name of the remedy is appended to the name of every disease. What else is required than reference to the name of the disease to find its remedy? In the mechanic arts the knowledge of the name of a tool does not necessarily imply the skill to use it.

Physicians have done themselves a wrong, and their noble art a wrong, by reducing to system what defies all system. They sometimes contradict themselves, and oftener one another in their nosologies.

The Nosologica Methodica of Sauvages comprises ten classes, twenty orders, three hundred and fifteen genera, and two thousand five hundred species; while Cullen has four classes, twenty orders, one hundred and fifty-one genera, and upwards of one thousand species. Good has cast his comprehensive mind on this difficult subject, and his nosology presents seven classes, twenty-one orders, one hundred and thirty genera, and four hundred and eighty species. Our distinguished countryman, Rush, has discovered disease to be a unit, and he proceeds fractionwise in his systematizing labours.

As well may poetry be written from the perusal of Aristotle's Art of Poetry, as disease be cured from the perusal of a nosology, or even the book of a system-maker. The energizing spirit of the invisible Creator must be seen and felt from the observation of all surrounding nature, and experience acquired in the use of the language to express every change and passing sensation, to make a poet. The heart to feel a brother's sorrows, and experience acquired in the means of allaying the pangs of mortality, are essential to make a physician. The former is the gift of God. The latter is a toilsome march, commencing with a pilgrimage to the tomb of mortality, and followed by perils to comfort, character and even life, ere yet "the harp of thousand strings" has revealed in its fabric the wisdom and special design of its maker.

"*Hoc opus, hic labor est*"—Anatomy is the alphabet of the *healing art*. How difficult to learn the alphabet of our profession, notwithstanding the labors of Harvey and Haller, of Hunter and Bichat, of Morgagni, and Mascagni, and Scarpa and Magendie, and their numerous associates and worthy successors on this as well as the other side of the Atlantick. The laws of the land are cruelly against us. Might not a wise legislator turn the spirit of moral reform which hovers over the age into the channel of publick good, by securing the enactment of a law authorising the commitment of the vagrant and harlot, on yielding up life, to the extension of the light of medical knowledge? Fear might come over them and stay their steps; or if

carried along by their depraved natures in the current of abomination, their fate might open the dark recesses of truth to the healing of the sick. The first step towards a medical education being attended with such difficulty and hazard, is one of the prominent sources of the uncertainty of the healing art. The more is known of nature in course, the more readily is nature traced in her wanderings. The more is known of man in his structure, and the economy of his healthy existence, the more readily are traced the aberrations from that healthy economy in the form of disease, and the better is understood the history and termination of disease in the morbid structure it produces.

The functions of the healthy animal economy must be understood, that functional disease be understood. The structure of the healthy man must be understood, that structural disease be understood.

The uncertainty of the healing art is increased by the difficulty of access to the proper sources of knowledge. Personal experience is of slow acquisition. It is true that books on medicine are abundant; but they oftener abound in theory founded on hypothesis, than in theory founded on fact; they contain more arguments to demolish preceding or contemporary theories, than true history of human suffering.

Most of the medical authors of celebrity have received an answer to the prayer of the pious man in holy writ, would "that mine adversary had written a book." No medical book is worthy of a perusal, which is not a transcript from the book of nature.

The treasures of medical experience to be found in medical libraries need sifting, that the true may be separated from the false, the certain from the doubtful, the doubtful from the palpably untrue. The knowledge thus attained, should be arranged according to the leading divisions of anatomists and physiologists. All that is known and which has been published on the diseases of the heart, and arteries, and veins, and absorbent vessels, which constitute the system of circulation, accompanied by engravings to represent to the eye the appearance of the morbid structure, would constitute a valuable addition to the library of every practitioner in the Commonwealth.

In the engraving part, lithography steps in and volunteers her services at a very cheap rate.

The diseases of the brain and nervous system, the diseases of the organs of respiration, the diseases of the organs of digestion, the diseases of the glands and organs of secretion, the diseases of the organs of reproduction, the diseases of the bones and muscles, or organs of locomotion, and the diseases of the skin, constitute other leading divisions for the distribution of the fruits of medical experience, from the time the healing art was a separate calling, to the present moment. Were it practicable to call order out of chaos and present all the medical knowledge which has been given to the public in a neat, condensed, well arranged edition of medical classics, embellished by engravings true to nature, much time and expense might be saved to the practitioner, and the economy of human exis-

tence essentially promoted. "There is nothing new under the sun, what has been, is, and shall be again."

This is the sound of true orthodoxy to all ears not heathenish. The power to reason on the future is derived from the history of the past.

A good medical history of this Commonwealth would be an important acquisition to all the Fellows of the Massachusetts Medical Society. A register of all the births and deaths is needful for a basis on which to found the calculations for insurance on life.

The influence of cultivation of the soil, in draining the sources of putrid exhalation, and in clarifying the atmosphere is seen in the disappearance of intermittents and bilious remittents. The extension of the arts of life to the promotion of human comfort has contributed also to the increased health of the inhabitants of this Commonwealth.

While a better replenished wardrobe, and a more comfortable dwelling are promoters of health, increased luxury, diminished industry, and the undue use of intoxicating liquors are impoverishing the fortunes, ruining the characters, and destroying the lives of the immoral devotees to idleness and appetite. The visions of the future will become revealed in the history of the past. "The prudent man forseeth the evil" and avoideth it. The uncertainty of the healing art almost disappears on its approach to a sound constitution; because it contains within itself the power simultaneously to endure the action of remedies, and to resist the progress of disease.

A sound body natural, as well as a sound body politic, speedily recovers, by skill in the use of means, from the greatest disorder.

Another mode of obviating the uncertainty of the healing art is the adoption of means to strengthen the human constitution. Let the Goddess of Health be invoked to visit the congregated artists, who clothe the human family. Let every one give ear from the hatter down to the shoemaker, and there would be constructed a coat of mail to protect naked mortals against the warring elements, which surround them. All personal constraint would cease, and the slaves of fashion set free, would recover their full power of action, and "walk over dry shod." This would release from a thraldom like the spell of witchcraft.

Let the celestial visitant approach those who feed the human family. Meat in due season would be distributed to every member. The diseases of repletion and the diseases of inanition would stand rebuked in her presence.

"Fruit forbidden," no beguiling serpent in the form of grandam, could present as fair to the eye of hungry curiosity or starving mendicity.

Suppose the invocation extend her visit to those who build houses, and she pour by her whisperings into their ears the sublime truth that man is a breather, and that air is the material of breath, and that the old woman died for want of breath, and that the air, the feeding element of the breath of life, must have free circulation around him, sleeping or waking, or he sickens and

dies. The Architect would come to the conclusion, that the edifice is not for the exclusion of the atmosphere, but for its temperate enjoyment under a regulated but free circulation. This said daughter of Esculapius, called Hygeia, might also be invoked to pour her notes into the ears of the sluggard, and the value of exercise in promoting health and long life would be understood.

If the Massachusetts Medical Society would excite an experienced mind to instruct the people of this Commonwealth, in adapting their diet, exercise, clothing, and habitation to their situation and variable climate, there might be recovered a hardy constitution, which was a birthright from hardy ancestors. This great boon secured would obviate much of the difficulty and uncertainty of the healing art. In a simpler state of society disease would become more simple.

The present age is the era of improvement. The clergy are sending the glad tidings of the gospel to farther India—the politician is teaching nations in bondage the art of freedom—the jurist is holding up, as in a mirror, the science of law, where man may read his rights as well as his duties; the farmer is reducing animal and vegetable production to the precision of a science; the artist, and manufacturer, and merchant are tasking the raging elements to toil for the extension of human comfort. Let not the Physician remain behind his neighbour in his efforts to prolong and render more comfortable human existence.

The founders and supporters of medical schools are

entitled to everlasting remembrance for their labors in calling the attention of the Faculty from speculation to nature, from the hypotheses of antiquity to the study of the structure and functions of the living man. They have constructed for medicine a beautiful temple; but its avenues and foundation are buried in a rubbish, which requires much labour in the removal. Let the youthful aspirant be sufficiently encouraged, and these avenues will become cleared. The State has granted to the Massachusetts Medical Society a fund, which might be distributed in rewards to successful adventurers, to whom should be assigned the labor of solution of the difficult and hitherto uncertain problems in the healing art. In what the funds of the society might fall short, private-individual, voluntary contribution might readily supply; for medicine to very many, if not to most of its fellows, has been a truly liberal profession in its rewards as well as its labors. In the above remarks is disclaimed all intention to withhold from the benefactors to the profession, who have elevated its standard, their merited acknowledgment.

There are no regular bills of mortality extending through the Commonwealth for a series of years, from which a comparison might be instituted to measure the extent of the improvement of the profession within the last twenty or fifty years. In the city of Boston, where its Board of Health keeps an accurate register, a result truly flattering to the sons of the healing art is obtained.

Annexed is a transcript from the records of the Board of Health, which presents an accurate obituary in the metropolis of our Commonwealth from 1813 to 1827 inclusively. In 1813 a population of about thirty-five thousand furnishes 786 deaths. In 1827, a population of 60,000, has but 1022 deaths. The whole is so interesting a document, that it is here presented entire.*

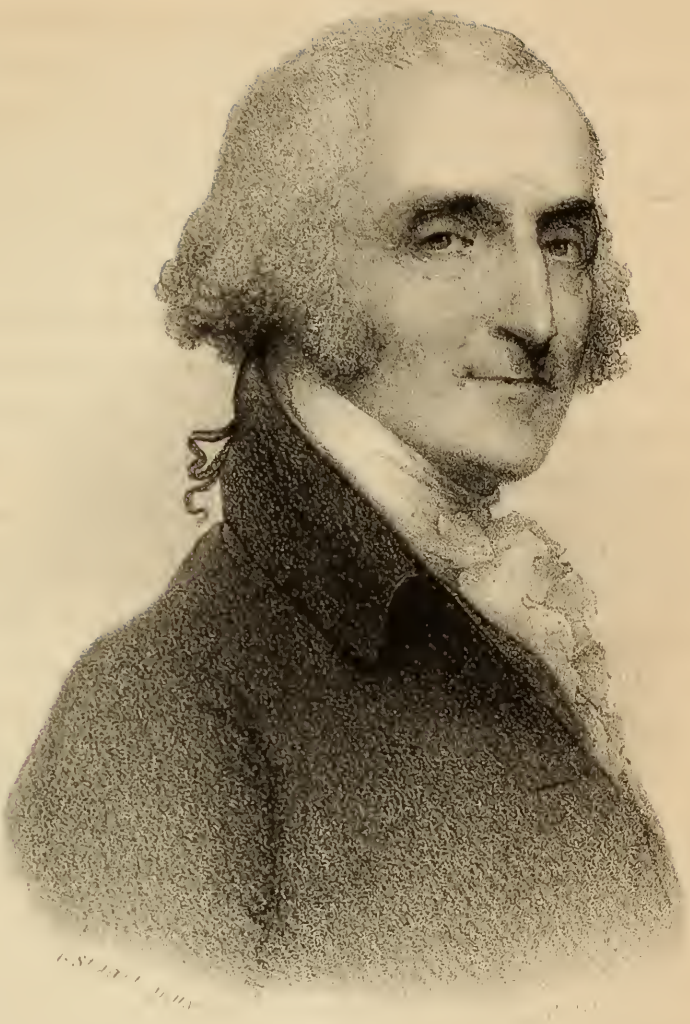
The Massachusetts Medical Society, and the constituted authorities of Boston, have been, under Providence, associated instruments of this alleviation of the lot of mortality. This Society has frowned on the presumptuous empiric, and encouraged unpretending skill to go forward in its labours. The Mayor of the city and his judicious associates have increased the comforts and improved the morals of the city poor, and at the same time diminished the tax for their support. This has been accomplished by their removal from their former close confinement to a farm, where a more wholesome diet and air, and increased occupation have supplied the elements of renovated health. The materials of pestilence they have also removed by the increased cleanliness of the streets, and more perfect drains from the cellars of the dwellings. Its quarantine has also been an important safeguard.

The regularly diminishing ratio of deaths with the regularly increasing ratio of the population, fairly deduced from the annual bills of mortality and the estimated census of the people, presents every encouragement to proceed in the march of improvement.

* See Table.

The time is fast approaching, when an approving recognisance for having discharged our duty as a connecting link in the chain of being, will constitute our only imperishable reward.

Since the last anniversary of this Society, death has invaded the ranks of our fraternity. The poor man's friend, Dr. Horace Bean, has departed at the age of fifty-four. The courteous gentleman and skilful physician, Dr. Oliver Prescott, has vacated his seat at our board, at the age of sixty-two. His vacant chair is the mournful remembrancer of a name, with which is associated honour in the history of the civil, military, and humane institutions of the Commonwealth. Middlesex, Worcester, Suffolk and Essex are the four counties, where his healing power was kindly exercised, and is now gratefully remembered, by those who had been his patients. On the sixteenth of November last, Dr. Samuel Danforth, some thirty years ago President of the Massachusetts Medical Society, "shuffled off this mortal coil" at the age of eighty-eight. It is a source of rejoicing that he is released from these bonds, because he had survived the power both of usefulness and enjoyment. Neither christian nor philosopher could desire his name or character associated with an empty mansion, which is but a lure to the pity of insolence or the scoffings of folly. Gathered, in a good old age, to the tomb of his fathers, his character, as a kind, upright, and skilful physician, survives to enlighten the Faculty, his associates and successors, in the same laborious but liberal pursuit.



SAM.L DANFORTH M.D.

Pendleton's Lithography

Born in the grove of the muses,* inhaling with his early breath, the lessons of wisdom from a father, whom the age accounted a great philosopher, the strongly developed nervous temperament of Dr. Danforth was excited to deep thought and study. While an undergraduate in Harvard University, the mathematics were his favourite branch.

Among his contemporaries at college and neighbours he was noted for that same severe love of truth and honour, which distinguished him as a man and a physician through his long and laborious life. At eighteen he was graduated. He commenced the study of medicine with Dr. Rand at Charlestown, at a time when high repute for skill in physick was requited by ninepence the visit.

Weston, in the county of Middlesex, was the theatre of his first trial in the exercise of the healing art.

From Weston he removed to Newport, Rhode Island. From Newport he came to Boston. His sojourn at Weston was but a few weeks, or months, and that at Newport but a few years. Boston became the theatre of his labours as well as of his fame and fortune. Tradition hath assigned fourteen years of unremitting toil as the price of his success in competing for a share of the medical practice in Boston. During this period he studied the science of medicine with all the ardour of a youthful lover. The philosophy of the age was much devoted to experiments in alchymy, that

* Cambridge.

the useful and precious might be detected and extracted from all substance.

Danforth was believed by his friends secretly to have participated in these labours. At any rate, when Alchymy, by her unremitting labour, gave birth to the beautiful science of Chemistry, like the benighted expectant of the approaching day-spring, Dr. Danforth received the work of Lavoisier with all the enthusiasm of a discoverer. The study of nature from the experiments of Alchymy and their transmutation into the splendid science of Chemistry is believed to have produced an influence in forming his theory of medicine.

He studied man as but an appendage of creation, and surveyed him as influenced by and influencing surrounding matter. Human life in its beginning, progress and termination, and succession, in its association with a physical organization, was the object of his continued and profound study. He was wont to kindle into impassioned eloquence in speaking of the influence of the atmosphere in originating and maintaining respiration. Sensibility was a darling topick of discourse.

Touch he regarded as the universal sense. "The delicate organization of the eye vibrated to the touch of the rays of light, the ear to the rays of sound, the tongue and the nostril to the contact of the grosser particles imparting taste and smell, while a no less important modification of the sense of touch enveloped the whole man in the nervous papillae spread on the skin and concentrated in the extremities of the fingers. The

lax and tense fibre of Boerhaave and the doctrine propagated by Brown, of stimulus on excitability in producing excitement," were incorporated with his theory of medicine. He extended these doctrines by the hypothesis that the corpuscles of the fibres were surrounded by their own calorick or electrical atmosphere, which were extended or contracted by the addition or subtraction of calorick.

He illustrated his theory by the report of a case of poison from the bite of a rattlesnake, and by another case of palsy cured by electricity. The former was a British sailor, who, in playing with the reptile in his possession, the observation of which had amused his hours of relaxation from professional duty, had been bitten on his finger during the Doctor's absence. The part above had been corded to prevent the communication of the poison : the hand and arm to the shoulder notwithstanding, were exceedingly swollen on the Doctor's return. Oil of vitriol as a caustic, was applied to destroy the part bitten, stupes of bitter herbs were applied to the swollen limb, and "alexipharmicks" used internally. The presumptuous sailor recovered. Dr. Danforth laid down the doctrine that there were two kinds of motion, one progressive, the other vibratory. The former applied to the heavenly bodies, the latter to the fibres of the living man. The poison of the rattlesnake on the bitten finger of the sailor, checked the action or vibratory motion of the fibre and changed the electrical or *calorific* atmosphere of its corpuscles, which check of action or vibratory motion threatened to invade the whole man.

The calorick from the stupes was communicated to the corpuscles of the fibres to the recovery of their vibratory motion, while the caustic destroyed the part poisoned, and tonics and cordials in the stomach as alexipharmics sustained the system in its effort to cast off the dead part. His paralytic patient was a Rev. clergyman.

Dr. Danforth assumed that palsy was a check of the vibratory motion of the fibre from the diminished electrical atmospheres of its corpuscles, and that the repeated communication of the electricity restored to the fibres the electrical atmospheres of their corpuscles to the recovery of the patient. During this shock the learned patient lost all consciousness and on recovery was compelled to learn anew even the alphabet. While Dr. Danforth was careful to note the modified action of surrounding matter by contact on an ever varying sensibility, he gave profound attention to the sympathies of the stomach. When summoned to the sick bed he investigated the case with extraordinary acuteness.

Was the stomach the seat of the disease. Ipecacuanha was the agent to rouse its healthy action. Was the alimentary canal below the stomach, or the glands which empty into it, the seat of disturbance, then calomel was his remedy to cure the disease. Bark was his tonic, accompanied by generous food and exercise, and friction and cold bathing. The increased or diminished action on the surface of the body he effected by the addition or subtraction, of caloric. Air, water, elec-

tricity, and cantharides, variously modified to his purpose were his agents. If disease had assailed the nervous system, the abstraction of light, of sound and of conversation, and abstinence, and opium to procure sleep, were his weapons. He proscribed the lancet. Depletion by cathartics, and emetics, and sudorifics, and vesication, and increased secretion and excretion and abstinence he altogether preferred to the sanguinary practice of blood-letting. He illustrated his preference by the figurative expression, "it were better to moderate the fire under the overboiling skillet, than to dip out the overflowing liquor." Beyond the circle of his own family-practice, the cases oftenest presented to his attention were either among malignant epidemic diseases, which alarmed the caution, or chronic diseases which had baffled the skill of the attendant physician. By nature and education an aristocrat, by unceasing toil and undeviating integrity elevated to the front rank of his profession, his clear and unequivocal prescription, founded on the application of his own theory, was received as law. His patients worshipped him as the Magnus Apollo; they feared departure from his instructions, almost as they feared the judgment to come. His noble form raised to the stature of six feet, his erect attitude and majestic gait, his high forehead and moveable ocipito-frontalis, which excited to contraction, accompanied a perceptible motion of his ear and arched eyebrow, his penetrant, full, blue eye, aquiline nose and sharp chin, and manly intonation, and his Casisus-like figure, all conspired to add emphasis to his words, as

the responses of an oracle. Shakespeare has not put into the mouth of Hamlet the description of a more perfect man, than Stuart has spread on canvass in the person of Dr. Danforth as seen in his portrait. His countenance seems beaming with all the dignified complacency with which it was clothed on beholding his patient rise from a sick bed. A more stubborn spirit of independence was never seen than was exhibited in the person and life of Danforth. When the Revolutionary war was in embryo, that martyr to his country's liberties, Dr. Joseph Warren, and Dr. Samuel Danforth were associated as physicians to the Boston Poor-house. The associates separated. Their association had been effected by a compromise between the aristocracy and democracy of the country. The loyalists agreed to admit a patriot to the emoluments of office, on conditions he be accompanied by one of their own order. While the active courage of the one led to a glorious death, the passive courage of the other was tried by the threat of tar and feathers and various contumely. Danforth, during many months, went armed with pocket pistols, prepared to repel assault or revenge insult. None who have not hearts of steel can see unmoved the trampling tyranny of the enraged multitude. It must however be confessed, that Dr. Danforth was protected by the spirit of that troop of Amazons, in those days vulgarly called the mob of "North-end" women who delivered of its coffee the warehouse of Mr. Thomas Boylston, and carted their booty to Fort-Hill for distribution. These fair veterans were

alike determined on possessing their Doctor, and their social cups of coffee, tea at this time being out of the question. This inflexible temper of personal independence came to Dr. Danforth very honestly. His ancestor, who came first to this country, deserted a fine estate, and fled to the wilderness to enjoy his liberty, as the tyranny of a tax for an order of knighthood without his consent, had been imposed by Charles I. The apparent discrepancy between the course pursued by the high-minded ancestor and his proud descendants becomes reconciled from the fact, that the latter had eaten the bread of their king.

The Hon. Samuel Danforth, father to the Doctor, was Judge of Probate for the County of Middlesex, when the revolutionary war commenced. During this stormy period, Dr. Danforth committed to the flames all his notes of cases, and medical writings, which otherwise might have been embodied into a system of medicine, as splendid as that of any of his contemporaries. Ever afterwards he spurned at the drudgery of recalling what had been voluntarily sacrificed, although at the time, expatriation seemed almost unavoidable. It was a familiar expression with Dr. Danforth, when an individual had insulted or injured him, that he would 'twig' him; he generally redeemed his promise.

The little pitiful practice of cheapening skill, was exercised towards him by the disbursing officer, who settled his account for attention to the town's paupers. In those days king stood for commonwealth. The

sage auditor decided that the charge must be, not for skill, but for medicine, by measure, or weight. The next annual account, Dr. Danforth drew according to the approved rule of the apothecary's weight and liquid measure. The open cauldron had received the sarsaparilla and lignumvitæ-dust, of course the account was properly vouched. The consequence was, the triumphant physician groaned under the weight of the precious metals on his return from the royal treasury, after settling his next account on the new principle. To a yielding adversary, Dr. Danforth was magnanimous and forgiving. A carman had unluckily demolished the ornamental fence to the front yard of his dwelling house, reparation for the injury was promptly demanded, full acknowledgment of the wrong and unqualified promise of indemnity on the part of the offender was followed by forgiveness of the trespass, and the high-minded landlord repaired the damage at his own cost. In his domestic establishment, Dr. Danforth exhibited the simplicity of a philosopher, and the urbanity of a gentleman. Avarice formed no part of his character, still he could keep money. Some twenty years ago, when a rage for speculation had created a difference of two or three per cent. between Boston and country bank-notes, Dr. Danforth had accumulated a few thousands in depreciated bills. A financial friend advised to a deposit with a broker the foreign bills, and drawing out in due time the specie. Dr. Danforth learned from the broker that a deposit of the foreign money ten days, should entitle to a payment in specie.

Ere counting his money, he inquired, with some emphasis, if such terms of exchange could be afforded; the interrogatory, receiving a reply in the affirmative, was followed by the response of the sagacious physician, that he also could afford to keep his money, which accordingly was returned to his pocket-book. Three days afterwards, this man of change closed his doors.

Fame was Dr. Danforth's ruling passion. The cure of the sick, enlisted all the strong sensibilities of his nature. His demand of remuneration for professional service was moderate, to the poor was cheerfully remitted. The late Chief Justice Dana of Cambridge, has often confessed the adoption of Danforth as his family physician, to have diminished his annual tax for medical attendance. Dr. Danforth neglected the rich hypochondriac, while the sick servant received his devoted attendance. His errors were the misfortunes of genius. To his friends his smile seemed like the sunbeams from the breaking cloud. To his adversaries and rivals his frown was like a tempest with thunder. For more than sixty years this man of power was devoted to the wants of the sick families, confiding to him their hope of relief; or night or day, or rain or shine, he faithfully repaired to their aid. Some fifteen years before his death, an injury to the right foot from the kick of a horse had rendered him lame. The feebleness of years invaded first that limb; but for that accident, it is more than possible, like the free horse, he might have died in the service. To the junior practitioner the name of Danforth will become the

watchword of perseverance, as that of Lawrence to the American sailor has already become that of constancy in the hour of battle. The glorious death of the one, as the disembodying spirit gave utterance to the memorable words, 'don't give up the ship,' has purchased a national spirit of more worth than forty Chesapeakes. The illustrious life of the other, in carrying confidence to the sick chamber, and imparting to the timid and doubtful practitioner the sublime maxim, *Nil desperandum*—presents to his successors encouragement to proceed in the great work of humanity. Twenty years ago the listening ear of pupilage drank in the words of wisdom as they flowed from his lips. Now at his death they seem to work an influence almost electrical in the recall of what the poet of all ages hath pronounced the 'noblest work of God, an honest man.'

It would do you a wrong, myself a wrong, and our enlightened community a wrong, to omit on this occasion the name of our benefactor, who has done more towards raising the standard of the medical profession, in this Commonwealth, than all others out of the profession, since the organization of the Massachusetts Medical Society.

You all anticipate, as you well may, the name of Boylston. Ward Nicholas Boylston, Esq. died at Roxbury, on the 7th of January, 1828, at the age of seventy-eight. His disease was angina pectoris, complicated with general dropsy and hernia. Several months ere his death, he could not support a recumbent posture.

Fully sensible of the slow but certain approach of the king of terrors, he endured his sufferings with the resignation of a Christian, and the calmness of a philosopher. During his last sickness, he often discoursed on the progressive improvement of the healing art, and pronounced a patriarchal blessing on the faculty. He may have derived his respect for medicine as a profession from his great maternal uncle, Dr. Zabdiel Boylston ; or his comprehensive mind may have been so penetrated with the value of medical science, from a familiar acquaintance with John Hunter, and other eminent medical philosophers, that he desired to encourage the best talents of his countrymen, to the cultivation of medical science.

The Boylston Medical Library of Harvard University, the Boylston Anatomical Museum of Harvard University, the Boylston prize medals for successful Dissertations on difficult medical subjects, and the donations to the Boylston Medical Society, constitute a sum total of patronage to the Medical Profession, which the recipients of the bounty will ever remember in silent but operative gratitude.

The ear of our benefactor is deaf to our feeble praise, but he is translated to the abode of the just made perfect, where their works do follow them.

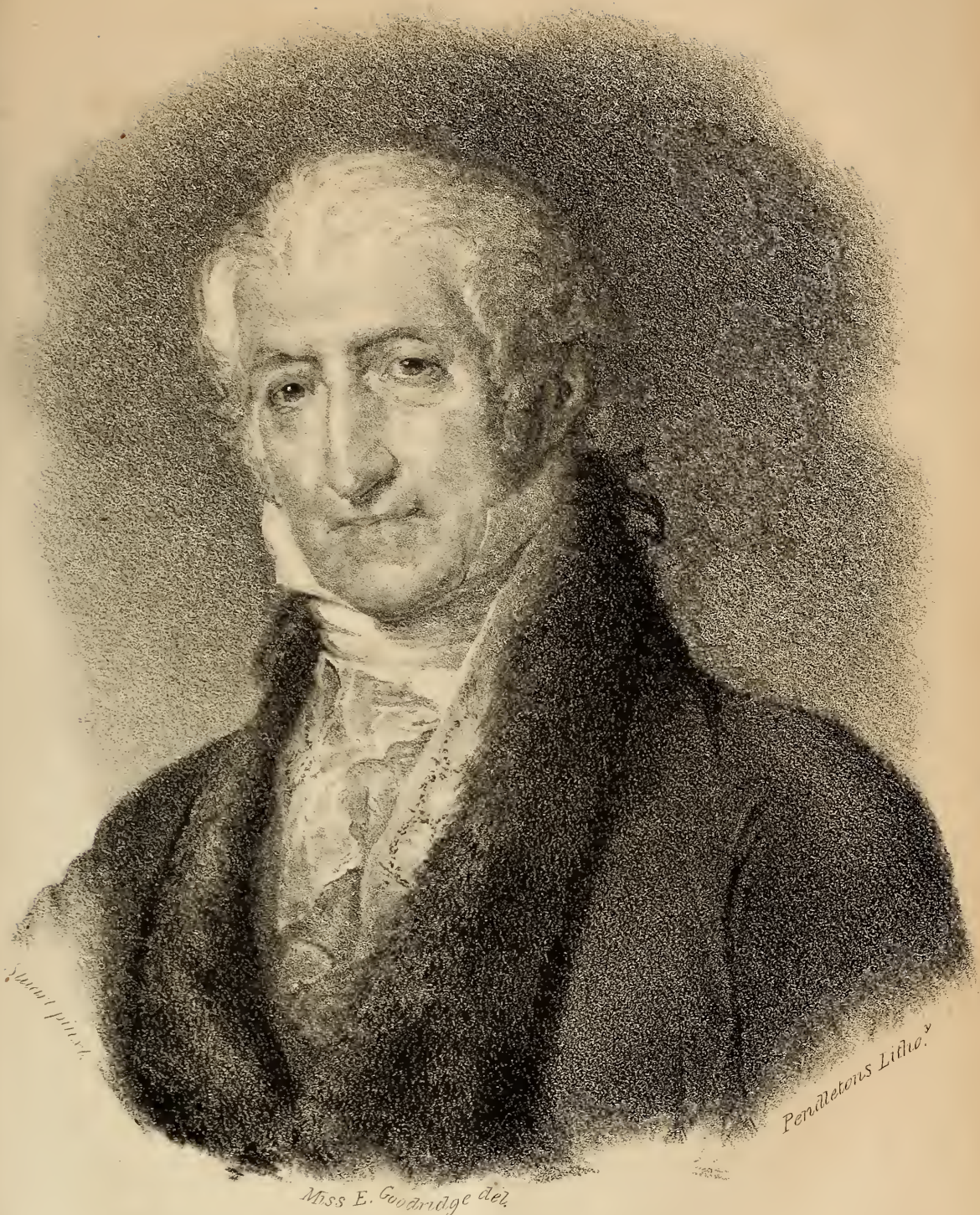
The Massachusetts Medical Society will learn, with much satisfaction, that the last moments of Mr. Boylston were soothed by friendship the most devoted, and kindness the most untiring.

The prominent incidents in the life of a benefactor

are ever recounted by the recipients of his bounty, with the most glowing delight.

Ward Nicholas Boylston, Esq. alias Ward Hallowell, was born in Boston, November 22d, 1749. The family residence of his father was on the site where now stands the new stone gothic church, in which the apostolical Beecher pours forth his eloquence to awaken slumbering christendom to extend its conquests through the habitable globe.* His father was an officer in the Custom House, when the revolutionary war began. His mother was a Boylston. His education was conducted in the free schools of Boston. By the particular desire of his maternal uncle, Nicholas Boylston, through a royal license, he dropped the name of Hallowell, and received the addition of, to his Christian name Ward, Nicholas Boylston. According to the laws and usage of the time, the Christian name could not be changed. The change of the paternal to the maternal name, took place March 25th, 1770.

* Benjamin Hallowell, Esq. the father of Mr. Boylston, married Mary Boylston, by whom he had fourteen children, of whom two only now survive; viz. Sir Benjamin Hallowell, vice-admiral of the Red, in the British Navy, and Mrs. Judge Elmsley, both residents in England. Mrs. Hallowell was the daughter of Thomas Boylston, and sister to Nicholas Boylston, and Thomas Boylston, and Mrs. Governor Gill, and three other sisters and another brother. Thomas Boylston, the father of Mrs. Hallowell, was the fourth son of Dr. Thomas Boylston, who came to this country in 1635, and settled in Brookline, on the farm where the late David Hyslop, Esq. resided. Peter Boylston, the third son of Dr. Thomas Boylston, was the father of the mother of the late ex-president John Adams. Dr. Zabdiel Boylston, F. R. S. who first introduced, at the peril of his life, the Small Pox inoculation into America, was the eldest son to Dr. Thomas Boylston above named, of course Dr. Zabdiel Boylston was great uncle to our deceased benefactor, and his mother and the mother of John Adams, the ex-president, were first cousins. Dr. Zabdiel Boylston when



W. N. BOYLSTON ESQ.

In 1773, change of climate having been advised by his physician to renovate infirm health, Mr. Boylston embarked on board the ship King of Naples, October the 12th, bound from Boston to Newfoundland; thence he sailed to Italy. From Italy he proceeded to Turkey. Syria, the Archipelago, the Holy Land, Egypt, and the Barbary Coast, became successively the scene of his travels. During this period his searching curiosity stored his mind with extensive knowledge illustrating the historical parts of the bible, and enlarged his sympathies toward the depressed and suffering portion of the human family. He extended his travels through Geneva, Savoy, France and Flanders to England, where he arrived at London on the 15th of July, 1775. During twenty-five years he remained in England engaged in the miscellaneous operations of trade. On the 23d of March, 1800, he embarked on board the Galen for Boston, where he arrived, the 15th of May, following.

Among the first acts which marked the benevolence of his character, on his return to his native country, stands recorded his confirmation to Harvard University of a bequest by Nicholas Boylston, Esq* in

in London befriended Franklin, while yet a journeyman printer in distress. Dr. Franklin, when embassador to the French Court about half a century afterwards, acknowledged the debt of gratitude to the great nephew, our deceased friend.

* At the annual commencement of 1772, at Harvard University, the Orator of the day thus notices the bequest of Nicholas Boylston, in an English Oration then delivered :

"To the illustrious names of Harvard, Stoughton, Hancock, Hersey and others, I add, with the highest satisfaction, the name of Boylston, who has lately

1772, of one thousand five hundred pounds, to found a professorship of Rhetorick and Oratory. By the terms of the bequest, it had become a lapsed legacy. At this time it had amounted to $23,200. The generous heir at law resigned his princely inheritence, conditioned that the original intentions of the testator go into immediate operation, and that John Quincy Adams be elected the professor. It is difficult to decide, which most to admire, his generosity in parting with his treasure, or his discretion in selecting the incumbent to fill an important office.

The power to persuade is a most desirable attribute of a liberal education in a free country. The cultivation of eloquence Mr. Boylston regarded as an important safeguard of freedom. To give effect to the instructions of the professor of Rhetoric and Oratory, the Boylston prizes for successful elocution were established.

In 1802, Mr. Boylston secured by a bond to Harvard University, an annuity of one hundred dollars, to be distributed in premiums for the discussion of prize questions on medical subjects. Five hundred dollars in 1803, were paid to the treasurer of Harvard University, to form a permanent fund, the income of which

manifested his beneficence to this University by an ample donation, to found a professorship of Rhetoric and Oratory.

> She to the amplest bounds of fame's domain,
> On honour's notes shall give thy name to fly,
> And unborn ages echo back the strain,
> Harvard forbids that Boylston's name should die."

The Orator of that day has since been Vice-President of the Massachusetts Medical Society.

was appropriated to the purchase of the most useful books.

To the annuity of sixty dollars for distribution in prizes to successful competitors in elocution, Mr. Boylston added in his last will, one thousand dollars; also, one thousand dollars to the fund for Medical Prize Questions, and another thousand dollars, in addition to the prize fund, in the hands of the Boylston Medical Society for the collection of an anatomical museum; the latter bequest, as an accumulating fund, ultimately to construct a building for the Anatomical Museum.

It is a source of satisfaction to the Fellows of the Massachusetts Medical Society, that this patron of medicine and of eloquence, has his name identified with the street, the market-place, the insurance office, and the school-house in his birth-place.

To the farmer Mr. Boylston's example is truly instructive. His farm-house, his barn, his fences, his animals, and his grass-lands were a model for imitation to the enlightened and enterprising yeomanry of the Commonwealth, as all visiters to his residence at Princeton can attest.

As a politician his enthusiasm knew no limit. On the inauguration of the present incumbent as President of the United States, he lighted a bonfire on the summit of the Wachusett, the light of which was seen in Boston; and at the same time baptized with fire this beacon to the mariner as he approaches our harbour, and changed its name to Mount Adams, which latter name is adopted on many of the recent maps. In jus-

tification of the change of an ancient name of a principal mountain, it may be well to mention, that the 2400 acres, as the territorial possession of Mr. Boylston, in Princeton, includes this entire mountain, base as well as summit.

The ex-president, John Adams, and Mr. Boylston, were fast friends. Their friendship was heightened by ties of consanguinity. The mothers to both were Boylstons.

On entering his ninetieth year, Mr. Adams entertained as a guest at his table, Mr. Boylston. It was generally known that Mr. Adams had experienced for a considerable time, such tremor in his hands as to be unable even to feed himself. Towards the conclusion of the feast was offered, as a toast, 'perpetual alliance between the Adamses and Boylstons.'

This sentiment so rallied the Boylston blood in the veins of the venerable ex-president, that he took and drank his glass of wine with a steady hand.

As a polished gentleman none exceeded Mr. Boylston, as both citizen and stranger may bear witness. Those who have tasted the feast at his table can never forget his hospitality.

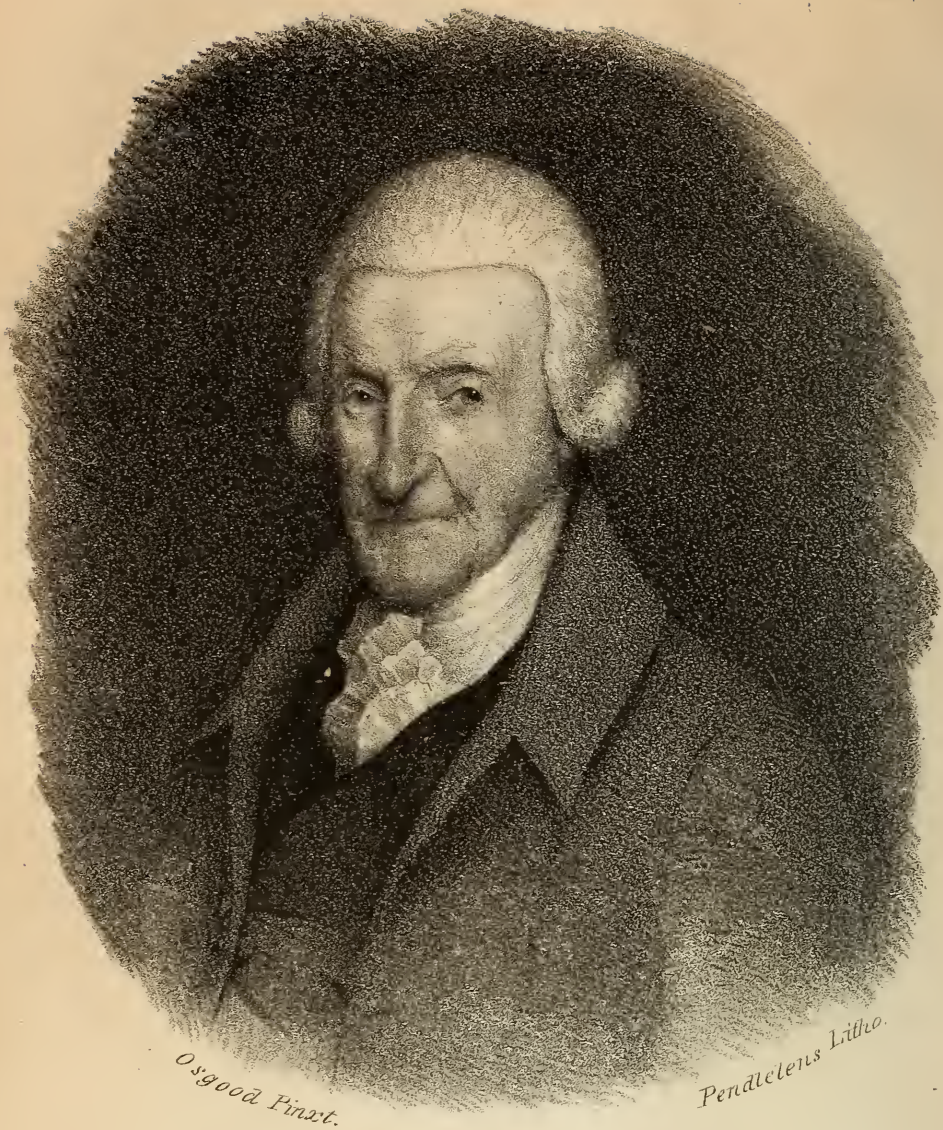
It may not be unworthy of mention, that he has left a very ample fortune to his family, notwithstanding his benefactions to the public, and private charities, in the form of annuities, to numerous friends whose circumstances had fallen into decay, and his having paid more than sixty thousand dollars in the law.

This imperfect and barren outline of a memoir of

the life of our departed benefactor, the Massachusetts Medical Society will more readily excuse from a general presumption, that the illustrious kinsman of Mr. Boylston, (who is co-executor of his last will, and guardian to his grandsons, and a legatee withal to his estate,) will, at some future season of leisure, employ his eloquent pen in writing his life and character.

The destroying angel has slain another victim. Dr. Ezekiel Dodge Cushing died at Hanover, on the 5th of April, 1828, at the age of thirty-eight, ere his arrival at "the noon of life." Inheriting from a healthy parentage, a robust constitution, his early years gave promise of a long life. He was the son of the late Mr. Nathaniel Cushing, of Pembroke, was graduated at Harvard University, in 1808, commenced the study of medicine with Dr. Nathan Smith, at Hanover, N. H. extended his medical education by attendance on the hospital and lectures at Philadelphia, and afterwards went to London, where he became a dresser in St. Thomas' Hospital under Mr. Birch, and simultaneously attended on the lectures of Abernethy, and Cooper, and Heighton. From London he went to Paris, in the hospitals of which, while the allies occupied that city, he enjoyed the opportunity of witnessing an extensive surgical practice. His education had been practical, and he had acquired to an eminent degree the tact of the profession. He commenced the practice of medicine and surgery in Boston, and but for the surplus of skill beyond the public demand, his success had been brilliant, a great proportion of his cases

and severe cases too, terminated favourably. Some years back, he had occasionally been in an epileptic state. Since his removal from Boston to Hanover, his practice in difficult cases extended even to towns quite distant. His opinions had given great satisfaction to both the attendant physician and patient. His last sickness, which commenced in a paralytic attack on the muscles of one side of the face and organ of speech, while travelling to visit a patient, was an atrophy connected with an entire prostration of the tone of the stomach. His sickness and death has shrouded in gloom his whole neighborhood. To his family the loss is irreparable. The odour of an honest fame is the only inheritance he has left to his wife and children. His wisdom had been for his neighborhood, and not for himself or family. His discretion had been discovered in good offices to the sick and suffering, and not in the ingathering harvest for his family. As Dr. Cushing cast his bread upon the waters, may his wife and children, after many days, under the blessing of the widow's God, and the Father to the fatherless, gather it up.



E. A. HOLYOKE. M.D.L.L.D.

AGED 100 YEARS.

E. A. HOLYOKE.

AGED 45.

A BIOGRAPHICAL MEMOIR

OF

EDWARD AUGUSTUS HOLYOKE, M. D., LL. D.

PREPARED IN COMPLIANCE WITH A VOTE OF

The Essex South District Medical Society.

TO THE FAMILY OF THE LATE DR. HOLYOKE,

As a slight testimony of the veneration in which the memory of their parent is held by his medical brethren, the following Memoir is respectfully inscribed, by

THE COMMITTEE OF THE ESSEX SOUTH DISTRICT MEDICAL SOCIETY.

Salem, June 1, 1829.

To preserve and transmit the memory of the good, is to promote the cause of virtue, and the practice of good deeds. Impressed with this consideration, the District Medical Society, of which the subject of this Memoir was their first President, have deemed it a pious duty, to collect the scattered memorials of a member of the profession, lately deceased, whose least distinction it was that his life was protracted far beyond the limits, ordinarily assigned to human existence.

In preparing the following memoir, the committee, to whom the duty has been assigned, have had in view other objects than the gratification of curiosity, and mere entertainment. Of the latter, an account of the daily duties of an unostentatious practitioner of medicine, affords but a scanty supply; and as the subject of the memoir had, of all

men, the least pretensions to eccentricities and singularity, there is little of varied interest in the events of his life. But it would be no small matter, if the contemplation of Dr. Holyoke's life, should convince an aspirant for medical renown, that to be eminent it is only necessary to become useful; and that a life faithfully devoted to the interests of philanthropy, and the study of philosophy and medicine, inevitably conducts to high honor and distinction, and obtains for its possessor a remembrance in the affections of mankind, and in the annals of the good, which will be durable and fresh when the reputation of misdirected talents shall have faded away.

The literature of our profession is deficient in the annals of those who have most contributed to raise its dignity and importance, and it is hoped that the following imperfect sketch, will be acceptable, at least to those who have been accustomed to feel an interest in the life and character of the Nestor of our profession.

Edward Augustus Holyoke was the second of eight children of Edward and Margaret Holyoke of Marblehead, County of Essex, Mass. His father was born in Boston, educated at Harvard College, where he was afterwards tutor, settled as pastor of the second congregational society in Marblehead, April 25, 1716, installed President of Harvard College 1737, and died June 1769, aged 80. His paternal ancestor came from Tamworth, on the borders of Warwickshire, England, and was among the

original grantees of the town of Lynn, where he settled at Sagamore Hill, in 1638.* President Holyoke was three times married; the first time to Elizabeth Brown of Marblehead, the second to Margaret Appleton, daughter of Col. John Appleton of Ipswich, and the third time to the widow of Major Epes of Ipswich Hamlet. The subject of this memoir was the offspring of the second marriage, and was born August 1, 1728, old style. In 1742 he entered the freshman class at Harvard University. He has preserved an account of his examination, and the sentence which was given him as a

* Dr. Holyoke had at one time in his possession the genealogical records of his family; but just before the revolutionary war, he lent them to Gov. Hutchinson, and they shared the fate of those papers which were destroyed in the mobbing of Mr. Hutchinson's house in 1765.

The following memoranda, furnished by a highly intelligent antiquarian friend, to whose researches we are indebted for other favors, are taken from the ancient records of this and the neighboring town of Lynn. It is to be observed the prefix *Mr.* was only used for the names of persons of some distinction. In 1638, the town of Lynn granted to "Mr. Edward Holliocke upland and medowe 500 acres." The name of "Mr. Edward Holiock" is found among the list of freemen of Massachusetts colony, May 14, 1638. (Savage's Winthrop, vol. ii.)

Thomas Putnam was married to "Ann Holyocke, 17th 8th mo. 1643, who was daughter to Mr. Edward Holyock and Prudence his wife, formerly of Tanworth in Warwicke sheere, England." (Record of births, deaths, and marriages, Salem.)

Among the depositions taken in the suit of Dexter to recover Nahant from the town of Lynn is the following:—"The testimony of Edward Holyoke, 27th 4th mo. 1657. About the year 1642, or 1643, Mr. Humphrey and Mr. Thomas Dexter the elder, did instigate me earnestly to joyne sute with them about Nahant, because Mr. Dexter said I had a proprietie in Nahant as well as them; myselfe purchasing what right Captaine Turner had in Saugus alias Lyn: but I durst not embrace that offer, because divers of the inhabitants gave forth that Nahant belonged as common to the plantation of Lyn, for that the contending for Nahant would have been as for Naboth's Vineyard." Taken before me, June 27, 1657. Samuel Denison. (County Court records.)

theme upon that occasion, seems to have been the motto of his future life. "Labor improbus omnia vincit." From this period to the end of his life, he was characterized by constant diligence, and assiduous attention to his duties. In 1746 he was graduated, and in the following year he spent six months at Roxbury in teaching a school.* In July 1747, he commenced the study of medicine under the care of Col. Berry, of Ipswich.† This gentleman was the most distinguished practitioner of his neighborhood, although his being universally known by his military title, does not speak highly for the estimation in which medical honors were then held. He finished his studies in April, 1749, and came to Salem in June of the same year. This place has ever since been the scene of his useful and philanthropic labors. For the remainder of his life he scarcely left the town, unless on business connected with his profession, and during his life he never wandered so far as fifty miles from the spot on which he was born. His longest journey was to Ports-

* For which he received eighty four pounds old tenor—$38,50: out of which he paid his board at sixty seven cents per week.

† "Thomas Berry, Esq. was born at Boston, the latter end of the 17th century, and was graduated at Harvard College, 1712. He received his medical education under Doct. Thomas Greaves, of Charlestown. He settled at Ipswich, Essex County, where he had a remarkable run of practice in his profession, and was considered the most eminent physician in that vicinity. But in the latter period of his life he was more attentive to politicks than physick. He represented the town in the legislature, and afterwards was of the council several years, was judge of probate for the county of Essex, and justice of the court of Common Pleas, and colonel of the regiment. He died August 10th, 1756, aged 72." (From a memorandum of Dr. Holyoke's.)

mouth, in 1749, at which time he was absent five days. In 1755 he was married to Judith Pickman, daughter of Col. B. Pickman of Salem. This lady died in her nineteenth year, in 1756, soon after the birth of a daughter, which did not long survive her. In 1759 he was again married to Mary Viall, daughter of Nathaniel Viall, merchant of Boston. Upon this latter occasion, he was absent from Salem a week, which is believed to have been the longest visit he ever made from home, except in 1764, when he went to Boston to be inoculated for the small pox. The length of this visit was occasioned by a custom which then prevailed, for newly married persons to devote a week to receiving the visits and congratulations of their friends, or as the phrase was, "sitting up for company;" a ceremony which Dr. Holyoke declared to one of the Committee was "very tedious and irksome." By his second wife he had twelve children, most of whom died in infancy. Two daughters only survive; the widow of the late Mr. William Turner, of Boston, and the wife of Joshua Ward, Esq. of this town. Dr. Holyoke perhaps was led to select this town as his place of residence, in consequence of the death of Dr. Cabot, which occurred just at the time of his finishing his studies; but so little were his expectations of employment realized, that after two years' trial, he appears to have had serious intentions of abandoning the place, in despair of success, and to have remained here only through fear of distressing his father if he returned home.

No man probably ever entered upon the business of his profession with more settled resolution and perseverance than Dr. Holyoke. He had youth and health, a constitution of mind and body eminently calculated for endurance of labor and fatigue, was reputed a good scholar for his time; he read the Latin language with great fluency, and he subsequently attained a familiar acquaintance with the French; he had as many opportunities of learning his profession as were common at that time, and was respectably connected, and advantageously known. But notwithstanding these advantages, the medical profession abounded in discouragements which, to say the least, are greatly lessened in our day. The standard of medical education was totally unsettled. Every one who chose to prescribe for the sick, was admitted to the rank of physician; the higher points of medical character, and the value of medical studies, were totally unappreciated by the bulk of the people; and the compensation for medical services was exceedingly small.* The periodical press did not then, as now, issue its regular current of observations and intelligence, and it was not till Dr. Holyoke reached the declining period of life, that this species of medical literature had given that impulse to the profession, which is so sensibly felt at the present day. It was rare, in the period of his meridian life, for any man to devote himself to

* His first visits were charged at 5*s*. old tenor, equal to 8 pence, or about 11 cents each. This was at a time when provisions bore nearly half of their present prices, and other necessaries of living were in proportion.

medicine as a science, and pursue the profession without reference to other advantages than those which appertain to medical and scientific character. During almost the whole period of Dr. Holyoke's life, the spirit of commercial adventure was the characteristic trait of almost all around him. There were many ways of rapidly attaining to wealth and distinction, which looked more inviting than the one he had chosen; and it shows his steadiness of purpose, and his characteristic contempt for mere money, that during his whole life he never appears to have been enticed to engage in any of the enterprises, which were undertaken by others in pursuit of wealth, or for a single day to have laid aside his character of a practitioner of the healing art. The following sketch is from the pen of his intimate friend and one of his eldest pupils now living.

"He possessed much vivacity of disposition, accompanied with great agility of body, and when at college was remarkable for his feats of activity. He was reputed to have been a very good scholar.

"The peculiar constitution of his mind led him to cultivate and to be much attached to experimental inquiry. He thought with Bacon, that it was the only road to discovery. He often expressed great aversion to hypotheses, whether applied to medicine or natural philosophy.

"He made some original experiments, more than half a century ago, with ether and the thermometer,

by which he discovered the power of evaporation to produce cold. And this was done before the discovery had been announced in America.*

"He was very attentive to his professional duties, visiting with equal promptness the poor and the rich. Few physicians in the United States have done so much for the poor. When in the sick chamber his manners were remarkably affable and kind, but preserving a proper dignity of deportment. Such was the success attending his practice, and his great reputation, that it produced to him such a pressure of business, as sometimes scarcely permitted him to take the necessary meals for supporting life.†

"In medical consultations he expressed himself with diffidence and caution, and with junior members of the profession, was free from hauteur, and was communicative, and at the same time candid, and disposed rather to conceal than to expose their errors.

"His practice has been thought, in the use of mercury and opium, to have resembled that of the celebrated Dr. Darwin. For although he very often prescribed those active agents, yet it was, perhaps, in more cautious doses than they are generally ad-

* See Appendix A.

† The following calculation conveys some idea of the extent of his business. He had filled 120 day-books of 90 pages each, containing charges for 30 visits on each page—giving an average of over 11 visits a day for 75 years. And upon one occasion, when the measles were epidemic in 1787, he made over 100 professional visits in a day, for several days. And there was a period of his practice when he could say there was not a house in Salem in which he had not visited professionally.

ministered in the present day. In pneumonic inflammation, however, and in cases of cynanche trachealis, the mercury was very liberally prescribed. In the latter disease he depended principally on the turpeth mineral.

"He was not averse as he advanced in life to the trial of new remedies, but might rather be said to be fond of such trial; but it was always done with great caution, to ensure safety to his patients. He early gave the mineral solution, and he was one of the first physicians in America that prescribed the Prussic acid.*

"Cheerfulness has been said to be conducive to longevity, and such an influence it probably had in the subject of this memoir, in whom this quality of the mind abounded, and formed a most conspicuous trait in his character. But although he loved cheerfulness, his conversation did not admit of levity. The subjects which he liked most to dwell upon, in the society of his friends, were such as had a useful bearing on morals, the arts or sciences, for the advancement of the happiness of the great family of mankind. A learned Professor said he

* One of the first cases in which he prescribed this medicine was that of his own daughter when in a hectical state. She was much benefitted by it, and shortly after regained her health. To one other patient affected with incipient Phthisis pulmonalis he prescribed the same remedy, and it was followed by such an alleviation of the symptoms that the patient was prompted to continue it for nine months, when she obtained a cure. So serious in this case was the malady, that Dr. Holyoke had mentioned to a friend that he expected to lose his patient. His trial of the Hydrocyanic acid was not limited to these two patients only, he had frequently prescribed it in other cases.

always learned something new from the Doctor's conversation.

"He was always a strong advocate for the truth of the Christian religion, and of the doctrine of immortality. And he adorned the religion he professed, by his benevolent deeds, and most exemplary life.

"The Doctor often regretted the want of greater advantages in his earlier medical education, and evinced by his diligence in reading the best medical authors, a desire to compensate as far as possible such deficiency. He possessed great industry, for if he returned home but for a few minutes, he would snatch up a book, and resume his studies. He was in the habit of importing, almost every year from England, for some considerable portion of his life, the new medical books of merit. But his reading was not confined to medicine exclusively. He was well versed in Astronomy, and the several branches of Natural Philosophy and Theology, and the Belles Lettres. He was truly a man of science, and the public manifested that they considered him so to be, by his having been appointed the first president of the Massachusetts Medical Society, and once also president of the Academy of Arts and Sciences.

"To his extensive science he united great urbanity of manners. The correctness of his conduct, prudence, and politeness were very remarkable. He was fond of society, which he enlivened by his wit, while he instructed his associates by a communication from the rich stores of his mind. For he

was what Bacon has styled a *full* man; and what was said of Dr. Mead may be applied to him. 'Whose abilities and eminence in his profession, united with his learning and fine taste for those arts which embellish human life, long rendered him an ornament, not only to his own profession, but to the nation and age in which he lived.'"

The characteristics of mind most essential to form the practical physician are a talent for observation, a readiness to take cognizance of the phenomena of nature, and curiosity to investigate the causes of these phenomena. These characteristics distinguished Dr. Holyoke from his outset in life.* He had a good memory, and although his incessant calls prevented his devoting much time to writing, he seldom passed a day, for the first sixty years of his practice, without noting down some fact or observation, calculated to augment his professional knowledge. His meteorological observations were recorded daily, almost without an interruption, for eighty years.

The study of the book of nature has been the occupation of the enlightened physician in all ages, and a more complete method of pursuing this study can hardly be imagined than that of Dr. Holyoke. If his attendance upon professional practice had ever allowed him to have fully completed this plan, and prepared the general results of all his observations

* See Appendix B.

for publication, he would have furnished a most valuable treasury of medical knowledge. He kept a memorandum upon his table in which was minuted down the name of every disease the moment he returned from making his call, the more remarkable being the subject of further memoranda, as their interest required, or his leisure allowed. At some stated periods, as at the end of the year, he made out a summary from these daily memoranda, in which he ascertained by computation the number of cases of every disease. He also was diligent in obtaining correct bills of mortality. He was thus enabled to inform himself most completely of the changes which take place in the frequency of occurrence, and the fatality of diseases. These observations, together with those of a meteorological character, formed a complete history of the physical changes which came under his notice. The manuscripts here alluded to, with the exception of those which were sent to the Massachusetts Medical Society, were never intended for public inspection, and are not left in a state to furnish a connected history of the diseases of this vicinity. But such a history might have been compiled from them by the author himself, which would have resembled in character and value the celebrated Commentaries of the venerable Heberden.

Astronomy was the favorite study of scientific men of the last century, and Dr. Holyoke devoted a portion of his time to this study. The appearance of comets, and remarkable displays of the Aurora

Borealis, are noted in his diary with much exactness.* In 1769† he made accurate observations of the transit of Venus over the sun's disk, and in 1782‡ the transit of Mercury over the sun's disk. The observation and recording of the changes of the weather, earthquakes, storms, and other memorabilia, continued to be a favorite pursuit with him as long as he lived. The well remembered September gale of 1815,§ is noticed and recorded by him, with much fidelity and exactness. The epidemics which occurred in his practice were never suffered to pass without at least a cursory record of the principal facts connected with them.

Although for reasons which have been mentioned, he did not often appear before the public as an author, he was not indifferent to the cultivation of medical science among its professors. As soon as the Medical Society of this State was formed,‖ he contributed his full share to their published transactions. He wrote the preface to the first volume, and the first paper of that volume is his interesting account of the state of the weather, diseases, operation of remedies, deaths, &c. in Salem, for every

* His letter to Professor Silliman, dated Sept. 19, 1827, in the American Journal of Science, vol. 14th, contains an account of the beautiful appearance of the heavens in the evening of August 28th, 1827, and of some prior exhibitions of the Aurora Borealis which he had witnessed.

† June 3. ‡ November 12. § See Appendix C.

‖ Doctor Holyoke was one of the founders of the Society, and was most punctual in his attendance at the stated meetings of the Society at large, as well as those of the District Society in which he was included. To this latter body he was a generous benefactor during his life, and bequeathed to their library some of his most valuable books.

month of the year 1786, and shows that he must have been in habits of close observation, and of noting down the occurrences he met with in practice. Observations of the same kind were communicated for the years 1782, 1783, 1784, 1785, 1787 and 1788. Every physician engaged in full practice, as was Dr. Holyoke at this time, will admit this to have been no small labor.

In the above mentioned paper the following remarks show what were his ideas, upon the duty of a practitioner in recording his experience, and what rich stores of knowledge, might have been furnished, to benefit the profession and mankind, if other distinguished physicians, who were cotemporary with Dr. Holyoke, had pursued the plan recommended and practised by him. "It were much to be wished that practitioners would more generally than they do, commit to paper their thoughts and remarks upon diseases as they arise, and communicate them to the Society; which, though doubtless it would be attended with some labor, yet this labor would be amply rewarded by the benefit which would accrue to themselves, their patients, and the art they profess. The observations of many, made at the same time, and in different parts of the country, and continued for a course of years, must, when collected and compared together, throw a great deal of light upon many points, which are now involved in much obscurity, and would doubtless be the readiest and most effectual method of furnishing materials

for a history of those diseases which are either epidemical or endemical in our country. Indeed the joint efforts of many engaged in the same design, may accomplish, in a few years, what would be impracticable to a few individuals, though employed for ages."

By this method of increasing knowledge, and by more extensive reading than was common at that day, he was, in the early part of his career, in advance of most of his professional cotemporaries. He acquired the authority of a master; and without being the leader of a sect, his opinions were adopted, his prescriptions copied, and his practice imitated. His treatment of dysentery may be taken as a specimen of his early practice;* a practice which he found successful, and which is still held in high repute by many practitioners of this neighborhood.

The terrible epidemic sore throat of 1734–5, which almost totally destroyed the infant population of the north part of Essex County, was keenly remembered for many years afterward, and the attention of physicians was directed to the inflammatory affections of the throat and lungs, and the operation of remedies the most efficacious in these dreaded and dangerous attacks. Hence originated a more complete acquaintance with the mercurial practice, than elsewhere obtained. An interesting letter of Dr. Holyoke's upon this subject was published in the first volume of the New York Medical Reposi-

* See Appendix D.

tory. As this volume of the work is now scarce, we have subjoined the paper in the Appendix.*

Although, as has been observed, Dr. Holyoke was a cautious practitioner, he was not a timid one, and never neglected to make himself acquainted with the reputed powers of new articles, which were from time to time introduced into the materia medica, and with the new modes of practice which were recommended by others. In the use of the Digitalis, of the gum Acaroides, of the muriate of Barytes, and of many medicines of later date, he was one of the earliest and most careful experimenters. His use of acetate of Lead in restraining hemorrhages,† of the oxymuriate of Mercury in the treatment of scrofula, and some forms of cutaneous disease, of small doses of calomel in the ulcuscula oris of children, have led to the establishment of modes of treatment, attended with the highest degree of benefit. There are several medicines which owe their introduction into use entirely to him, and may in fact be said to have originated with him, as he was the first to settle their best mode of preparation and administration. The article so well known in this place by the name of the "white balsam drops" or "fennel balsam," is a strong solution of subcarbonate of potass with the addition of a little of the essential oil of sweet fennel, and is a valuable diaphoretic and carminative, especially to children. This was a favorite medicine during his whole prac-

* See Appendix E.

† See Appendix F.

tice. He obtained his first knowledge of it from a Mr. Wigglesworth of Malden.* Of a cheap method of preparing the Sal Æratus or super carbonate of Potass he wrote an account for the Massachusetts Medical Society, which we have reprinted in the Appendix.† This article has in this neighborhood nearly superseded the common Carbonate, both in medicinal and culinary preparations.

Dr. Holyoke's prescriptions were, for the most part, put up under his own inspection, either by himself or his pupils. This practice was nearly universal, even in the large towns, till the commencement of the present century, and if there were obvious disadvantages in the necessity which called for so much of the valuable time of the physician, there were undoubtedly some benefits derived from connecting practical pharmacy with his more dignified duties. The practice still prevails among many of our brethren in New York and farther south, and is warmly advocated by a distinguished individual of their number.‡

Dr. Holyoke was intimately acquainted with the qualities and preparations of all the drugs he was in the habit of using, and was extremely neat and skilful in compounding them. Although, perhaps, he used a greater number of remedial agents than enter into the prescriptions of the present day, he was by no means infected with the polypharmacy which was

* See Appendix G. † See Appendix H.

‡ See Dr. Hossack's introductory lecture, 1825, page 19.

the prevailing fault of the physicians of his time. The following anecdote, related by one of his pupils, exhibits the simplicity of his practice. "When I first went to live with him, in 1797, showing me his shop he said 'there seems to you to be a great variety of medicines here, and that it will take long to get acquainted with them, but most of them are unimportant. There are four which are equal to all the rest, viz. Mercury, Antimony, Bark and Opium; of these there are many preparations, however. Of Antimony I think I have used thirty.' These are his words substantially. He ought to have added Cantharides, but he was thinking of internal remedies." The same person adds, "I can only say of his practice, the longer I have lived, I have thought better and better of it."

In 1777, Dr. Holyoke applied himself to the business of innoculating for Small Pox. He had himself been innoculated in April 1764, by Dr. N. Perkins at Boston, and his careful minutes of this occurrence,* illustrate the customs and practice of that day. In March 1777, he took charge of the hospital, which had been erected a few years before for

* This business was in those days considered a very weighty affair. Dr. Holyoke first wrote to Dr. Perkins at Boston, where in consequence of the Small Pox having been for some time spreading, the selectmen had given eave for a general innoculation, to engage his attendance and receive his directions for the proper preparation of the system. By Dr. Perkins's direction, he took a pill at night of five or six grains of Calomel with Antimony, and lived low. After some days of this process he was reduced sufficiently to receive the disease in the most favorable manner, and accordingly, *having executed his will*, he went to Boston April 6th, and first went abroad after the Small Pox April 23d, having had the disease in the most favorable manner.

Small Pox* innoculation, and conducted through the disease, three classes, amounting in all to about 600, with only two fatal cases occurring. But the loss of these two, less than the average number, one of which occurred in his first class of 200, affected his sensitive mind with so much anguish, as almost to occasion self reproach, and a resolution to abandon the undertaking. During most of the period of his patients remaining in the hospital, he passed his whole time with them, night and day, and many persons in this place, who were at that time under his care for innoculation, testify to his assiduous and skilful attentions.

The Small Pox, that loathsome pestilence, has long since disappeared with us, and the practice of innoculation has been superseded by a still milder preventive, so that we hardly stand in need of the lessons of experience, to teach us how to manage the innoculated Small Pox. But perhaps a more judicious set of rules and prescriptions, can no where be found for this purpose, than those formed and practised upon by Dr. Holyoke, in the Salem hospital. His hospital records contain an account of almost every patient, and a well arranged and concise exposition of the general method of treatment.

Dr. Holyoke was an early vaccinator. He was in the common practice of it in the beginning of 1802, if not sooner.†

* See Appendix I.

† The vaccine was received in this neighborhood directly from London, and a highly respectable physician now living in a neighboring town, was

As a surgical operator Dr. Holyoke had more than a mediocrity of talent and skill. He never appeared to have any extraordinary preference for this branch of his profession, but as a matter of necessity held himself qualified for all the usual demands for surgical treatment. In fact the opportunities for a display of surgical address are much less frequent in the population with which Dr. Holyoke has resided, than might be expected from its number. One of the Committee has heard him say there was a period of twenty five years, during which he saw nearly all the important cases of disease and accident, in the town of Salem, and yet never performed or witnessed an amputation of a large limb. This exemption from operations is to be ascribed partly to the character, the habits and occupations of the people. Agriculture and the fisheries were the principal pursuits, and the building of ships and houses the only mechanical employments in which there were likely to arise many occasions for surgical assistance. It must be allowed too, that the period in which Dr. Holyoke held the lead of practice in this vicinity, was characterized by a greater degree of *temperance* among laboring people, than existed in most large towns. Even at present, while it is acknowledged that the vice of intemperance has been, of late years, a growing evil, it is believed there are few

among the first, if not the very first person in America, *who fairly put in practice* the new method. This gentleman, who received the virus from his brother in London, commenced vaccinating in the spring of 1800, and with a praiseworthy liberality furnished the virus to all his professional brethren who applied for it.

seaports in which there is a less number of sots, in proportion to the whole population. The extreme rareness of the operation of Lithotomy is quite noticeable in this vicinity. The perfect purity of the water drank by the inhabitants of this town, is no doubt one cause of the infrequency of the disease requiring this operation. But for many years past, and previous to laying the logs of our aqueduct,* which brings us water that does not require distillation, to render it sufficiently pure for pharmaceutical purposes, the occurrence of a case of stone in the bladder, would have been considered a remarkable phenomenon in the practice of any physician. Notwithstanding, however, the infrequency of cases requring surgical operations, such was the extent of Dr. Holyoke's practice, that he was occasionally called upon to perform amputations, and other important operations; and in these cases his promptitude and success were such as procured him a high degree of reputation. So late as December 1821, when he was ninety two years old, he performed the operation of paracentesis. In the management of fractures he particularly excelled. No man handled a broken limb with more tenderness and adroitness.

As an obstetric practitioner he was greatly esteemed, and upon this branch of his business he seems to have bestowed extraordinary attention. On his first coming to this place, this department of the healing art, was entirely in the hands of igno-

* The aqueduct was first used in the summer of 1805.

rant midwives, and the physician was only called, in extraordinary cases, or to rectify some of the blunders of these practitioners. He has preserved an account of the first forty five obstetric cases which occurred to him. The first one which he "was persuaded to engage in" occurred 1755, after he had been six years in practice, and it was not till four years afterwards that he makes the record of a case which was the first "common easy birth which ever came under his management." Thus it happened that he was early taught to meet the *difficulties* of this branch of medical practice, and he acquired a fertility of expedients, and dependence on the resources of art, which no doubt, contributed to the safety of many a female in the hour of peril, after he became extensively engaged in attending to these cases.*

He received pupils during nearly all the period of his active practice; and some of the most distinguished physicians of New England were educated under his care.† Of his pupils there are thirteen now living.

The period of the revolution was a trying one to the subject of this memoir, and he never loved to dwell upon the recollection of it. His feelings in the spring and summer of 1775, were intensely painful. In referring to that period, he said to one of his family, he thought he should have died, with the sense of weight and oppression at his heart. He

* See Appendix K. † See Appendix L.

had sent his family to Nantucket, and the loneliness of his home, increased the feeling of desolation. Most of his intimate friends and near connexions favored the royal cause, and his own education had attached him to the established order of things, and his peaceful temper shrunk from the turmoil of a revolution. He thought this country destined to be independent, but believed the proper period had not arrived, and that weakness and dissension were likely to follow what he considered a premature disunion. But in after times when referring to these opinions, he was wont, with his usual ingenuousness, to say that the event had proved he was wrong in his prediction. He imputed to the revolution a change in the manners of the people, which will not be reckoned among its good effects. He thought there was a falling off in domestic discipline, and a relaxation of wholesome subordination among children, since the freedom of the colonies.

During this trying period he kept steadily occupied in his benevolent duties,* and such was his prudence, his inoffensive manners, and the universal respect for his virtues, that he did not meet with so much trouble as might have been expected from the unpopularity of his opinions. Although most distinguished men, who had adopted the royal cause, found it expedient to leave the country, it does not appear that he was ever impeded in the prosecution of his business or studies for a single day. Once

* See Appendix M.

only he committed himself, by signing an address, in common with a number of the most distinguished citizens of the town, complimentary to Gov. Hutchinson, who was about leaving the country. He afterwards felt himself obliged, as well as most of his associates, to publish a sort of apology for this act, which recantation, as it was called, contained nothing that was servile or disgraceful.* It does not appear that his practice was ever injured by the part he took in politics. He held a commission as a magistrate both before and after the revolution.

Dr. Holyoke was as little of a partizan in religion as in politics. He was firm and decided in his own opinions, but seems neither to have expected nor desired uniformity in christian belief. But although without any extravagant zeal, he was, emphatically, a *religious* man. A strong sense of moral accountability, an earnest desire to conform his actions to the will of God, and the cultivation of an ardent feeling of gratitude for divine mercy and protection, were manifested by his actions and conversation. These sentiments are often alluded to, in a feeling manner, in the memoranda he made of passing events, and especially of those accidents and occurrences which at different times had endangered his own life. He was a diligent student of the scriptures, and continued to read the New Testament in the original until the last year of his life. For many years he usually reperused this volume with great care, once every

* See Appendix N.

year. He was as constant in his attendance at church, as his numerous engagements would permit, and in the most busy period of his practice, would so arrange his business as most commonly to find time for public worship on some part of every Sunday. In deeds of piety and benevolence he was always active, and through life, had a systematic charity proportioned to his means. His gifts were bestowed with the most scrupulous secrecy, and from his intimacy in the families of all classes, seldom misapplied. The widowed mother and the orphan children, were often relieved by a present of money through the post office, which a grateful curiosity has traced to Dr. Holyoke.

The loss of his hearing was the greatest privation in respect to health which Dr. Holyoke suffered. This for many years impaired his enjoyment of the pleasures of society, for which he had so high a relish. When he was forty five years old, his eyesight required the aid of convex glasses. These he used for about forty years, when his eyesight gradually returned, and at the time of his death it was so perfect, as to enable him to read the finest print, without the aid of glasses. In early life he could see with much distinctness to a great distance, but after he left off his glasses he lost this power, and for the last few years, he has complained that objects at a distance were multiplied, so that he could see four or five moons, &c. An alteration in the refracting power of the chrystalline lens, not uncom-

mon in old age, and which occasions the image to be imperfectly formed upon the retina, might be considered the sole cause of this imperfection of sight, or it was perhaps connected with the state of the brain he so accurately describes in the account of his own case.

After he had passed his seventieth year, although at this time in full practice, he often expressed a fear that he was too old for his employment, and that his powers of mind had failed him. In particular for the last thirty years of his life, he was wont to lament his loss of memory, and say that he only read for amusement, and that his mind retained nothing. This, though true to a certain extent, his characteristic humility greatly exaggerated. He did retain the more important ideas which were traced in his mind, and kept up with the improvements in the practice of our art, to a degree most unusual for a man who had reached threescore years and ten. Since he attained his hundredth year, he passed an hour in the study of one of his medical acquaintances, and was greatly interested in inquiring what had been the last accounts of the operations for removal of urinary calculus by the new operation of lithontripty. Only one week previous to his last confinement, in February last, he dictated a letter to a gentleman in Connecticut, who had written to him requesting his opinion in a case of schirrus, in which letter Dr. Holyoke recommends the trial of Iodine, and gives full directions for its

administration. Perhaps these incidents of his last days, exhibit in a sufficiently clear manner, what was the most distinguishing intellectual trait of his whole character. It was that he was always ready to receive information,—that he kept his mind open, so to speak, and never allowed prejudice, or the conceit of great acquirements, to prevent his examining and adopting any thing which claimed to be a novelty or improvement.

The circumstance of his arriving to be an hundred years old, an occurrence so unusual to happen to any man, and of which it does not come within the knowledge of the Committee that there are many authentic accounts of its having happened before to *eminent* physicians,* was looked upon by the Doctor

* Some eminent physicians have attained great age, and several of them have their ages recorded at one hundred and upwards ; but in almost all these cases, the contradictory accounts of authors, give us reason to doubt the correctness of the statements. Hippocrates is said by some authors to have died at 104, by others at 99. In Van der Linden de scriptis medicis, are the following instances. "Abhomeron Abenzoar, Arabs medicus et scriptor. Floruit circa annum Christi 1130 *vel* 1160. Vitam ad 135 annos produxisse *fertur*." "Abubeter Rhazes, Mahomethus. Poenus, vixit annos 120. Floruit circa A. C. 1070, *secundem alios* 1085."—These doubts shake our confidence in the correctness of the record.

In Belknap's History of New Hampshire, among the remarkable instances of longevity we find "In Durham, John Buss, a preacher of the gospel for 33 years, but not ordained ; also a practitioner of physic, died 1736, at the age of 108. He was remarkably active and vigorous at a very advanced age." Vol. iii. p. 252. A death was announced in the newspapers of Oct. 1803, "at Ward, Mass. Hezekiah Meriam, physician, aged 100. He lived with his wife 78 years and she survived him."

In the topographical description of Honiton in Devonshire, (Gent. Mag. vol. lxiii. pt. 1, page 114,) mention is made of the tomb of "Thomas Marwood, gent. Physician to Queen Elizabeth, who died in the *Catholic* faith, 18th September, 1617, aged *above* 105."

The following authentic anecdote satisfies us that we must admit this gen-

and his friends as an era of very great interest. Upon this occasion his medical friends of Salem and

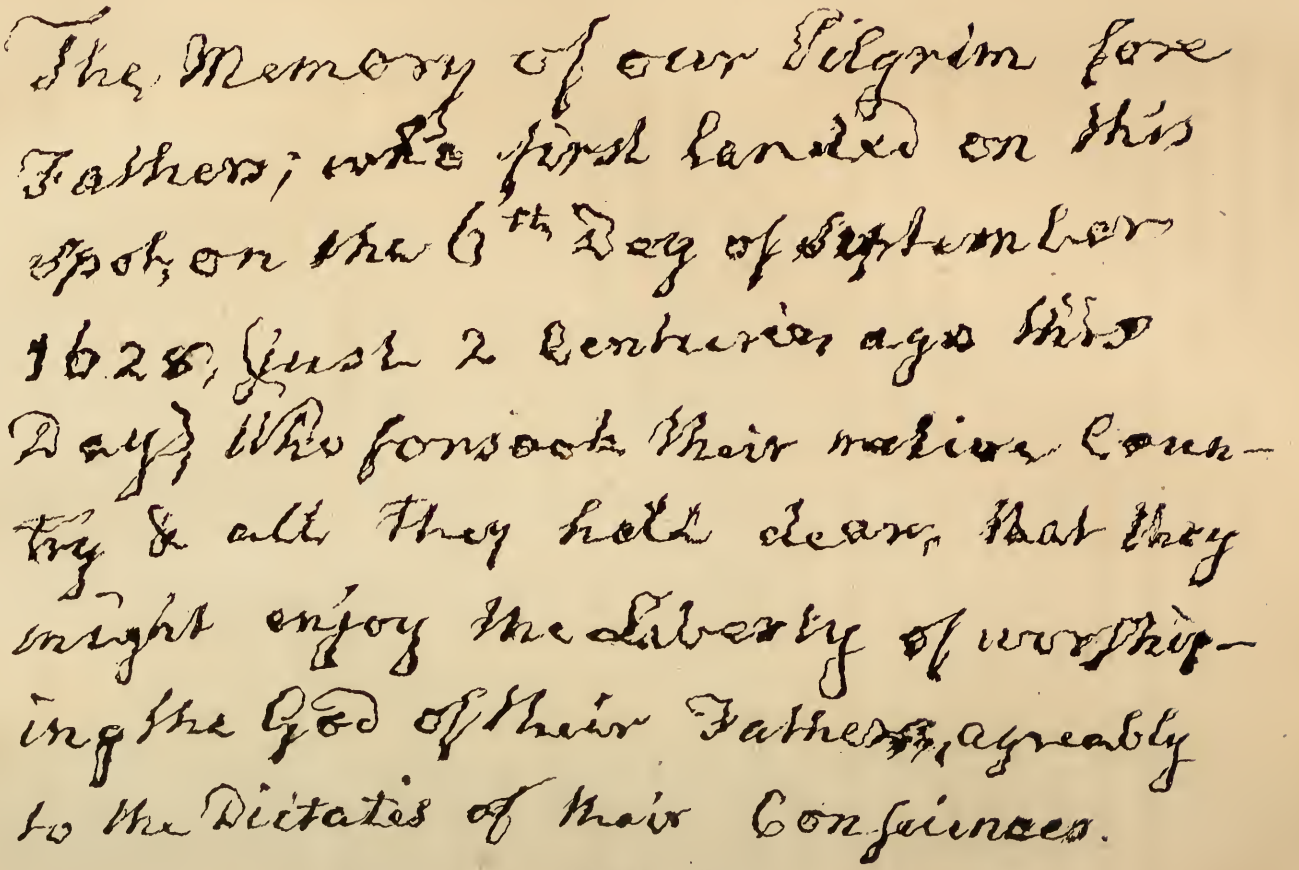
tleman's claims to eminence. "During that part of the reign of Queen Elizabeth, when the Earl of Essex was most in favor, his lordship had a disease in his foot, which baffled the skill of the first medical men in the metropolis, and his existence was despaired of. Dr. Marwood of Honiton, a physician of the first eminence in the West of England, whose fame had reached the Queen's ear, was sent for, and was fortunate enough to perform the cure; when her Majesty desired the Doctor might be introduced; which being done accordingly, she asked him what favor she should grant him, to satisfy him for the great cure he had accomplished. And the Doctor being already possessed of an ample independence, which he had inherited from his ancestors and acquired by his profession, said, 'If her Majesty would grant him a favor, (mentioning one of a very trivial nature,) he should consider himself amply rewarded.' But the Queen, struck with his choice, declared he should accept of an estate near Honiton as a reward; which property forms at present part of the immense landed property of James Thomas Benedictus Marwood, esquire, of Avishays in the county of Somerset, and Sutton in the county of Devon, his lineal descendant." Op. Cit. 1809.

Surpassing these is an instance of medical longevity mentioned in the Gentlemen's Magazine for May 1781, concerning the subject of which nothing remarkable is recorded except his great age and his bequeathing five pounds a year to the poor of his parish. The inscription upon his tomb stone in Ware, County of Herts, England, renewed by the trustees of his benefactions to the parish, is as follows: "William Mead, M. D. who died Oct. 28, 1652, aged 148 years and 9 months." He was but four years younger than the celebrated old Parr, but more than twenty years younger than the well known prodigy of longevity, Henry Jenkins, the fisherman, who died at 169.

But even the last mentioned must give up his claims to seniority if the following instances rest on good authority, and there seems no reason to dispute the Welsh record from which they are taken. "Ivan Yorath buried a Saterage the xvii day of July anno Doni 1621, et anno regni regis vicessimo primo, annoq: aetatis circa 180. He was a souldier in the fight of Boswoorthe, and lived at Lantwitt Major, and he lived much by fishing." "Elizabeth Yeorath the wife of Edmund Thomas was buried the 13th day of February, in the year of our Lord God 1688, age 177." Extracts from the parish register of Lanmaes in the county of Glamorgan. Op. Cit. Vol. lxiii. pt. 1, p. 106.

Cases of longevity are not rare among persons not distinguished for their mental powers, and the close of life with such, is frequently a state of mere existence, "sans every thing." A circumstance as remarkable as any connected with the longevity of Dr. Holyoke is, that he retained the power of using his intellect with vigor and energy, and of communicating his ideas intelligibly to the last of his days. His letters written after he was an hundred years old prove this.

Fac-Simile of Dr. Holyoke's toast at the Centennial Cel-
-ebration at Salem 18.th Sep. 1828.


The Memory of our Pilgrim fore
Fathers; who first landed on this
spot, on the 6th Day of September
1628, just 2 Centuries ago this
Day; Who forsook their native Coun-
try & all they held dear, that they
might enjoy the Liberty of worship-
ing the God of their Fathers, agreably
to the Dictates of their Consciences.

Eddy del. Pendletons Lithog.

Boston united to pay their respect to him, by inviting him to a public dinner. At this period he appeared in perfect health, and his firm and elastic step, his cheerful and benevolent looks, his easy and graceful manners, the model of the old school of gentlemen, his nicely powdered wig, his dress arranged with studied neatness, and just enough of antiquated fashion to remind one that he belonged to the generation gone by, but not outraging the proprieties of the present mode, his accustomed nosegay slipped through his button-hole, and his affectionate and grateful greeting of those who had assembled to do him honor, will never be forgotten, or remembered without delight, by those who witnessed them. He partook of the hilarity of the occasion with an evident zest, and when called upon for a toast, offered in his own hand-writing, a sentiment perfectly appropriate and professional, accompanied with a paternal and touching benediction upon the medical brethren who were present. At the same time the District Medical Society testified their respect for him, by requesting him to sit for his portrait to be placed in their library. It is from this portrait the print is taken which is prefixed to this memoir. The anniversary of his birth day was on the 13th August, and on the 18th September, the centennial anniversary of the settlement of the town, he was again induced to take part in the public celebration. On this occasion he offered the toast we have selected to preserve as an autograph. The

excitement of these occasions appeared rather to invigorate him than otherwise, and he afterwards visited Boston and Cambridge, and the place of his birth; upon all which occasions he enjoyed much gratification. This was, however, the last lighting up of the spark of life, and in about a month he began to feel the approach of that disease which terminated his life.

Among those to whose unwearied assiduities the subject of this memoir owed much of the comfort of his latter days, it may be allowed us to mention his eldest daughter, Miss Margaret Holyoke. After the marriage of his other daughters, and the death of Mrs. Holyoke, in 1802, the care of his family devolved on his daughter Margaret. She was an excellent woman, of a contemplative, well-informed mind, devotedly fond of her father whom she held in the highest veneration. From the character of her mind she was well fitted to be her father's best companion, and her death, which occurred January 25, 1825, was a severe blow to him, and appears to have cast an unusual gloom upon his prospects of prolonged life. In recording the event of her death among some of the domestic occurrences of the year, he adds the feeling aspiration, "Sit anima mea, tecum, filia carissima!"

The close of Dr. Holyoke's life was a period of quiet and calm domestic enjoyment, but not of idleness or disgust. He received the visits of those who waited on him to testify their respect for his

venerable and virtuous character, with great affability and apparent gratification. He did not make the uncertainty of life and his being near the close of it an excuse for inaction. After he had completed his hundredth year he commenced a manuscript, which he entitled recollections, in which he proposed to minute down some of the changes in the manners, dress, dwellings and employments of the inhabitants of Salem.* This occupation was suggested to him by a letter of inquiries on these topics from a gentleman of antiquarian taste and research in Pennsylvania. The few slight memoranda we have inserted in the Appendix, will show the nature and interest of this task which was interrupted by his last sickness.

In seeking for the causes of his length of life, and enjoyment of health, it seems obvious that he owed these to a rare combination of natural advantages with the habits of life best calculated to preserve these advantages. He was a happy example of a sound mind, associated with a sound body, neither of which was matured or maintained at the expense of the other. In his person he was rather below the middle stature, but it was impossible for the most indifferent observer, not to perceive that his body was compact and well built, and exactly proportioned; and that it was calculated for strength, activity and endurance. His mind was likewise not characterized by any striking or prominent quality,

* See Appendix O.

but was active, vigorous, exact, observant and distinguishing. His good state of health was not owing to his entire exemption from occasional acute diseases. When he was but seven years old he suffered a severe attack of tetanus from drinking cold water, and to this cause he sometimes attributed the spasmodic affection of the muscles of the lower limbs, which was so frequently brought on by any food which disagreed with his stomach. During his pupilage he had a severe fever, attended with delirium, which lasted more than a month, and during the rest of his life was occasionally confined by cholera, by fever, and by inflammations of the throat and lungs. He required and sought but little relaxation from professional occupations, and these of the simplest kind. Occasional short visits to the neighboring towns, where his connexions resided, a weekly evening conversation club,* and the culture

* Dr. Holyoke took great pleasure in the meetings of his Monday night club. Their object was improvement in philosophy and literature by reading and conversation. Some of the most amiable and distinguished individuals who ever belonged to this town were associated in it. Their meetings were interrupted by the breaking out of the revolution, and commenced again in 1779. During the period of their suspension, or at least a part of it, so strong were the Doctor's attachments to the memory of his friends, that he was accustomed to devote the usual evening of their meeting every week, to conversing about them with his family, who were assembled for the purpose. In this club originated the "Social Library," and the "Philosophical Library," which, united, formed the foundation of our Athenæum. The "Social Library," was a very respectable collection of books for the period in which it was founded, viz. 1760. It was created by donations of books from the private libraries of the founders and by a subscription of money. It was afterwards enlarged by assessments. The occasion of forming the "Philosophical Library," was the capture in a prize vessel during the revolutionary war of the private library of the celebrated chemist, Kirwan. Some of the

of his garden, were his principal resources for amusement. As an indoor recreation he was fond of the sober game of chess, which was the only game of skill he was accustomed to play at. He now and then indulged in a party upon the water in summer, and for many years of the early part of his life, in his favorite exercise of skating upon the ice in winter, in which exercise he was well skilled. He sometimes too, upon festive occasions, till he thought his age rendered it unbecoming, mixed in the sprightly dance, of which he was said to be fond.

His avocations did not afford him the leisure to

best books of our Athenæum were obtained from these collections, such as the Philosophical Transactions, Memoirs of the French Academy and other learned bodies. Dr. Holyoke was among the earliest and most liberal contributors to these institutions, of which he was a trustee till they were merged in the Athenæum in 1810. He was trustee and president of this corporation from its foundation to his death.

Mr. Thomas Robie was the last survivor except Dr. Holyoke of the ante-revolutionary club, and the venerable senior pastor of the first church is the only one now living of the Monday night club. This latter gentleman has always been distinguished for his zeal in philosophical pursuits, and Dr. Holyoke was often his associate in many interesting experiments and astronomical observations.

Among the names of the persons who constituted Dr. Holyoke's club and his intimate acquaintance, in those days, were those of Andrew Oliver, Judge of the County Court, Nath. Ropes and Benj. Lynde, Judges of the Superior Court, Rev. Wm. McGilchrist of the Episcopal church, who was educated at Oxford and distinguished as a mathematician, Rev. Thomas Barnard of the First church, Rev. Dr. Barnard of the North church, Dr. Ernestus Plummer, Dr. Putnam, who was cotemporary with Dr. Holyoke, Mr. Wm. Pynchon, an eminent lawyer, Col. Pickman, Col. Frye, Col. Browne, afterwards Governor of Bermuda, Col. Eppes Sargent, Col. Ichabod Plaisted, Mr. Stephen Higginson, Mr. Thomas Robie, and Mr. Sam'l Curwen. More than half a century ago, an eminent Boston divine used to say there was no pulpit in which he should not choose to preach an ordinary sermon sooner than that of Mr. Thomas Barnard, of the First church in Salem, to whose parish most of these men belonged. Many of them were men of accurate literary attainments, great critical acumen, and of considerable research in theology.

carry on literary or scientific correspondence to the same extent that some other eminent men have done. But he kept up a regular and sprightly interchange of friendly letters with some intimate friends in this country and England, and numbered among his occasional correspondents several eminent philosophers of his day, among whom were Dr. Priestley and Sir Charles Blagden. His taste for the belles letters and the fine arts, which he manifested early in life, would doubtless have enabled him to have made a respectable figure as a man of taste; but all these pursuits seem to have been early laid aside, lest they should interfere with his medical studies and occupations. While in college he took lessons in drawing and painting, and occasionally in the early part of his life, exhibited slight specimens of his talent in this line. He was somewhat fond of poetry,* and appears to have been capable of appreciating its beauties and judging of its merits.

Of his temperance there is one remark which we think it of consequence to make, since it shows the error of those who think that temperance consists in relinquishing some articles of food or drink, while they indulge to an injurious excess in others. His was a temperance of *moderate desires*, that never led him to err in *quantity*, and thereby rendered him less solicitous about the *quality* of his food. The following letter, written last autumn, in answer to one he received from a gentleman, who had ad-

* See Appendix P.

dressed to him some inquiries concerning his habits and mode of life, gives a satisfactory and interesting account of these matters.

To —— —— —— Williamsville, Person County, North Carolina.

Salem, Oct'r — 1828.

Sir,

I received yours of the 20th ult. on y^e^ 30th, wherein you wish me to give you some Account of my Mode of Life, &c.—In answer to which I would first mention that I was providentially blessed with an excellent Constitution—that I never injured this constitution by Intemperance of any kind—but invigorated it by constant Exercise, having from my 30th to my 80th Year walked on foot (in the Practice of my Profession)—probably as many as 5 or 6 miles every day, amounting to more than a *million** of miles, and tho' sometimes much fatigued, the next Night's refreshing Sleep, always completely restored me. In early life, between 20 and 30, I used to ride on Horse back, but being often pestered by my Horses slipping their Bridles I found it more convenient to walk.

As to my Diet, having been taught to eat of any

* This seems to have been a slip of the pen, the following is his own calculation, made in 1823, and which from his great dread of exaggeration falls short of half the actual amount. "If from my age of 20 to 80 years I have walked 5 miles a day, which is a moderate calculation, I must have gone in that 60 years, ... 109,500 miles.

And in the first 20 and last 15 years, . . 38,325

In 95 years probably, Total, ... 147,825

thing that was provided for me, and having always a good Appetite, I am never anxious about my food, and I do not recollect any thing, that is commonly eaten, that does not agree with my Stomach, except fresh roasted Pork, which tho' very agreeable to my Palate, almost always disagrees with me ; for which however I have a remedy, in the Spirit of Sal Ammoniac. Eight or Ten drops of Aqua Ammonia pura in a wine glass of Water, gives me relief after Pork, and indeed after any thing else which offends my stomach. As to the Quantity, I am no great Eater, and I find my appetite sooner satisfied now than formerly ;—there is one peculiarity in my Diet which as it may perhaps have contributed to Health I would mention ; I am fond of Fruit, and have this 30 or more years daily indulged in eating freely of those of the Season, as Strawberries, Currants, Peaches, Plums, Apples, &c. which in summer and winter I eat just before Dinner, and seldom at any other time, and indeed very seldom eat any thing whatever between meals.—My Breakfast I vary continually. Coffee, Tea, Chocolate, with toasted bread and butter, Milk with Bread toasted in hot weather, but never any meat in my Life—seldom the same Breakfast more than 2 or 3 days running. Bread of Flour makes a large portion of my Food, perhaps near 1-2. After Dinner I most commonly drink one glass of Wine—plain boiled rice I am fond of—it makes nearly 1-2 of my Dinner perhaps as often as every other Day—I rarely eat Pickles or

any high seasoned Food—Vegetable food of one kind or other makes commonly 2-3 or 3-4 of my nourishment—the condiments I use are chiefly Mustard, Horse radish and Onions. As to Drinks, I seldom take any but at meal times and with my Pipe—in younger Life my most common draft was Cider, seldom Wine, seldom or never Beer or Ale or distilled Spirits—But for the last 40 or 50 years, my most usual drink has been a Mixture, a little singular indeed, but as for me it is still palateable and agreeable, I still prefer it—The Mixture is this, viz. Good West India Rum 2 Spoonfuls, Good Cider whether new or old 3 Spoonfuls, of Water 9 or 10 Spoonfuls—of this Mixture (which I suppose to be about the strength of common Cider) I drink about 1-2 a Pint with my Dinner and about the same Quantity with my Pipe after Dinner and my Pipe in the Evening, never exceeding a Pint the whole Day; and I desire nothing else except one glass of Wine immediately after Dinner the whole day. I generally take one Pipe after Dinner and another in the Evening, and hold a small piece of pigtail Tobacco in my mouth from Breakfast till near Dinner, and again in the Afternoon till tea; this has been my practice for 80 years—I use no Snuff—I drink tea about sunset and eat with it a small slice of Bread toasted with Butter—I never eat any thing more till Breakfast.

I have not often had any complaint from indigestion, but when I have, abstinence from Breakfast or

Dinner, or both, has usually removed it; indeed I have several times thrown off serious Complaints by Abstinence.—As to Clothing, it is what my Friends call thin; I never wear Flannel next my Skin tho' often advised to it, and am less liable to take cold, as it is called, than most people—a good warm double breasted Waist-Coat and a Cloth coat answers me for winter, and as the season grows warmer I gradually conform my Covering to it.—As to the Passions, Sir, I need not tell you that when indulged, they injure the Health; that a calm, quiet self possession, and a moderation in our Expectations and Pursuits, contribute much to our Health, as well as our happiness, and that Anxiety is injurious to both.

I had a good Set of Teeth but they failed me gradually, without Pain, so that by 80 I lost them all.

Thus, Sir, you have, blundering and imperfect as it is, an answer to your Requests, with my best wishes that it may be of any service to the Purpose for which it was made—But must rely upon it that Nothing I have written be made public in my Name.* Wishing you long Life and many happy Days, I am Yours, &c.

E. A. H.

P. S. I forgot to speak of my repose. When I began the practice of Physick, I was so often call'd

* This prohibition could only have regard to the period of his life time, and was occasioned by that extreme modesty which always rendered it painful to the Doctor to be held up to the public notice.

up soon after retiring to Rest, that I found it most convenient to sit to a late Hour, and thus acquired a Habit of sitting up late, which necessarily occasioned my lying in bed to a late Hour in the Morning—till 7 o'cl'k in Summer and 8 in Winter. My Business was fatiguing and called for ample repose, and I have always taken care to have a full proportion of Sleep, which I suppose has contributed to my longevity.

A lameness in my right hand obliges me to employ an amanuensis.*

In summing up the character of our venerable friend, it is not too much to say, he was a perfect model of the general practitioner of medicine. His manners were equally removed from servility and arrogance. Free from dogmatism, and trusting to the mild dignity of his manners to enforce his precepts, nothing excited his displeasure more than the swaggering, *Radcliffe* style assumed by some men to impose an idea of their consequence upon the vulgar, who are sometimes prone to believe that excessive rudeness is a mark of genius, and that consummate insolence, is, not unfrequently, coupled with consummate skill. These people he used to term "medical bucks."

* This lameness was occasioned by a slipping of the tendons of the exterior communis digitorum from their proper place in the groove of the metacarpal bones, just where the knuckle is formed, into the spaces between these bones. Dr. Holyoke always attributed this lameness to the absorption of the bone from age and not to disease.

His regard for truth was scrupulous and sincere, and this was obvious in his reasoning upon facts, for he was never known to form a deduction which required the sacrifice or modification of an important fact in the premises; but he rather suffered his judgment to remain suspended, and waited for a farther insight into the operations of nature. From the same cause, a letter of recommendation or introduction coming from him, even in behalf of the most valued of his friends, was sure to contain not one word more, than came within the scope of the author's personal knowledge and observation.

The respect in which his person and character were held, by the inhabitants of this place, was almost enthusiastic. The whole of the present generation have been *taught* to look upon him with veneration, and to pronounce his name with affection and respect. His name was sought for in every undertaking for the welfare of the community, as a sort of passport to the confidence of his fellow citizens. When a few years since some pilferer had taken from his door-post the thermometer which had been suspended there for so many years, from which he had taken his daily observations of temperature, the act was viewed as a sort of sacrilege, and it was generally agreed that it could not have been the deed of a *Salem* thief, for it was thought there could be none in town so base, as not to respect the property of the Salem patriarch. It is difficult to speak of the estimation in which all classes united

in holding him, without being suspected of exaggeration, but it is certainly safe to say that all who knew him, regarded him as having reached a height of moral rectitude as elevated as was ever attained by uninspired human nature ; and what his eulogist said of him was literally the absolute conviction of his friends, " that knowingly to do wrong, in a single instance, would have required in him as severe an effort as the practice of elevated virtue in most men." This veneration of all who knew him must be regarded as arising from the possession of some peculiar and unusual moral qualities. He was obviously less *selfish* than most men. His ready generosity and the moderate competence with which he always contented himself, prove this. But still more peculiar was the perfect simplicity and singleness of heart which marked his moral conduct. There was no *effort*, he *acted* right because he *felt* right, and every one could see that the kindness of his manner was a sincere expression of the kindness of his heart. It was the perfect confidence which every one had in the habitual rectitude and purity of his intentions that induced persons of all ages and of all classes to look upon him as a sympathizing friend to whom they might safely intrust their most important interests. His sickness and expected death were the most common topics of inquiry with the citizens of Salem for some days previous to his decease ; and when this event took place, it was announced by the tolling of all the church bells of the town, a mark of

respect never known to have been shown to any others than the late presidents of the United States. All classes of persons thronged to his funeral to pay their tribute of respect to his memory, and the eulogy, pronounced over his remains by his pastor and intimate friend, the reverend Mr. Brazer, was a chastened effort of genuine and touching eloquence, and a delineation of his moral and religious character, which was recognized as faithful and just, by the crowded assembly before whom it was pronounced. As that production is now before the public, we have avoided enlarging upon some points in regard to the character of Dr. Holyoke which are ably and fully expatiated upon by his eulogist.

Dr. Holyoke enjoyed his usual health until November 24th, 1828, when on returning from a short ride, he received an injury in his right leg in getting out of the carriage. The iron step struck him just below the knee, and turned down a triangular flap of skin of about two inches in length, an accident from which he was sometime in recovering. After this period his health visibly declined, although he continued to exercise nearly as usual until the 25th of January, after which time he ceased to go out. About the close of November he began to experience pain about the region of the stomach, which for some time had a diurnal exacerbation at about 11 o'clock, A. M. with occasional hiccough. This pain destroyed his usual cheerfulness and spirits, for an hour or more of each day, and after this the de-

pression passed off and his usual serenity returned. His pulse was not remarkably altered except occasionally intermitting; a phenomenon which was common during several of the last years of his life. On the first of March he went into his chamber, although on that day he retained enough of vigor to dress himself as usual. From this time he was principally confined to his bed, and his appetite greatly diminished; but with the diminution of appetite, and consequently of food, the pain of the stomach abated. About fourteen days previous to his death, he was attacked with pain of the lower extremities, principally in the heel and great toe of the left foot. After five or six days of this pain, the skin of the parts most pained grew darker than natural, and at length complete sphacelus took place, ultimately extending to the knee. About a week before his death he suffered pain of the extremities in an intense degree, and on this occasion, in the course of twelve hours, he took 40 drops of Acet. Opii. which he bore well, and which had the effect of producing comparative ease. He now felt conscious that delirium was approaching, and mentioned that he should lose his senses, and had occasional periods of delirium till his death, which occurred at six o'clock of Tuesday, the 31st of March. On the Sunday previous to the day of his death, at ten A. M. he was raised in bed to discharge his urine, which he was not able to accomplish, and in four or five minutes fell back exhausted. Stupor immediately super-

vened, and he remained with his eyes partially closed, and unable to speak or to swallow; the left side paralyzed, the right hand and arm frequently in motion, pulse hardly perceptible.

The following are his own memoranda in reference to the state of his health for sometime previous to his decease, and, except that his expressions concerning a "vacuity" are not perfectly definite, and perhaps imply that there was some space within the cranium not occupied by the brain and the effused fluid, must be regarded as a specimen of sound pathological reasoning, fully justified by the state of the parts as exhibited on dissection.

February 9th, 1826.

"I am now between 97 and 98 years old, and enjoy good health, excepting now and then a cramp in my lower extremities, which I have always been subject to, and the complaint I now attempt to describe.

"About 10 or 11 years ago, I found that in walking I was apt to lose my equilibrium, and sometimes to stagger like one intoxicated, particularly if I looked up to see the town clock, or how the wind blew, in doing which I have several times nearly fallen to the ground; this complaint gradually increased.

"About two months past I perceived an odd and unusual sensation in my head when I suddenly

changed my posture, which to my feeling was as if a moderately ponderous fluid fluctuated over the surface of the brain, and when I turned in my bed, I felt as it were a fluid flowing from the side I had been laying on, to the other side of my head. And when I sat up in bed, after having been awhile on my left side, I felt as if a fluid floated over to the right, and carried my head with considerable force along with it. When I lay my head down on my pillow at night, I have a sensation like what I suppose would arise from the pressure of a fluid flowing down to the back of my head, and crowding it down hard upon the pillow; this sensation of crowding continues but 3 or 4 seconds, after which I feel no more of it till I alter my posture.

"One morning in November last, upon getting out of bed, the impetus of the fluid (if there is one) was so great as to throw me on the floor, though I exerted my utmost endeavor to keep myself on my feet; since which I have been more on my guard, and though I have never since been thrown to the ground, I have twice since been thrown into a chair which stood by the bed side, which saved me from falling. While I sit still I feel no complaint, but every sudden motion of the head is apt to produce a trace of it.

"This fluctuation, which never lasts more than a very few seconds, is not attended with the least degree of pain, nor any loss of consciousness even for a moment, nor am I sensible that the faculties of

my mind are injured or affected by it, in the least; nor have I ever perceived any gyratory motion such as vertiginous patients complain of.

"Presuming that in order to our walking steadily it is necessary that the cranium be completely filled by the brain, and observing that persons greatly advanced in age were apt to walk unsteadily, to lose their balance, to stumble and fall, as is the case with me, I am led to suspect that the brain in such subjects becomes shrivelled and contracted, and that from this cause a vacuity takes place.

"And may not a fluid be lodged between the dura and pia mater, without injuring the functions of the brain, if it be not so accumulated as to compress it?

"When I first felt the fluid it seemed as thin as water, and to shift its place as quickly as water would, but lately it appears in less quantity, and as if more viscid, and longer in passing from one side of my head to the other.

"I would observe further, that from my first feeling the propensity to stagger and stumble, the complaint has been invariably greater in the evening than in the fore part of the day.

Queries.

"1. May not old age, or some disease, induce such a shrinking, or collapse, of the contents of the cranium, as that they may not completely fill it,

without sensibly injuring the functions of the brain? And if so

"2. May not a serous fluid occupy that void, without injury to the functions of the brain, provided it be not accumulated in such quantities as to take up more room than the brain did in its natural healthy state?

"3. And would not such a state of the encephalon, account for the appearances of the symptoms just mentioned?"

The foregoing contains a connected account of the facts and his reasoning upon them. The following detached observations, show the continuance of the symptoms with some modifications, and prove his opinion to have remained unchanged concerning the nature of the alterations within the cranium, which he was accustomed to consider the natural consequences of his advanced age, rather than the result of any disease.

"My idea of the disease is this—I presume that we are not able to walk steadily, unless the cavity of the cranium be so full as to prevent the brain from being agitated when the head is in motion. I presume also that by disease or old age, the brain may be so shrunk or shrivelled as to leave such a vacuity as to allow the brain to vacillate, and so produce the staggering and unsteady walking, so common to persons much advanced in age.

"And if such a cavity exists, I presume it may become dropsical, as every other cavity of the body may.

"And if the fluid does not entirely fill the cavity, there may be a fluctuation; and as in this case there can be no compression, the functions of the brain will in no degree be injured by such a dropsy.

"As the whole human frame shrinks with age, and we grow less in all our dimensions, I see no absurdity in supposing the brain to do so too; unless we suppose the bony cavity to contract in proportion—which I think is not probable.

"I have stated my case to several physicians, but none of them are disposed to admit of a collection of a fluid between the dura and pia mater; but as my impressions and feelings are distinct and determinate as if I saw the fluid with my eyes, I am compelled to believe that such a one does really exist. May not a complete fullness of the cavity of the cranium be necessary to enable us to walk steadily? May not the tottering and proneness to fall, incident to age, be accounted for by supposing the brain to shrivel and contract, as the whole body does in advanced age, so as to leave a vacuity; and may not that vacuity be supposed to contain a fluid, as every other cavity sometimes does? Now if this fluid does not occupy so much space as the brain did, the function of the brain may not be injured, though the instability may be much increased."

In the interesting post mortem examination which follows, will be found some explanation of the symptoms described above, and the principal facts, the shrinking or collapse of the brain from age, and existence of a fluid to supply the deficiency, accord precisely with the language used above. At this examination all the physicians of the town were invited to attend, and most of them were present, and their attention was particularly directed to those organs and textures which are usually found affected in very aged persons. It must be admitted that these organs and textures were found in a surprizingly sound state, and the dissection fully justified the remark of a learned writer upon old age,* that most aged persons die of actual disease in organs not worn out by the length of time they have been performing their functions. The bodies of very many persons at 60 years, exhibit on dissection more of the appearances which are thought to result from age, than did Dr. Holyoke's.

On examining the body externally, it was found to be somewhat emaciated, the left leg sphacelated to the knee, the abdomen lank and dark colored, the thorax resounding naturally in every part, the scalp nearly denuded of hair. On dividing and turning

* Sir A. Carlisle.

back the scalp, which was very thin and delicate, not a single drop of blood flowed. Although the utmost care was taken in sawing the cranium, as soon as the saw penetrated the inner table, a transparent fluid began to flow, and on removing the calvarium, it was found that the dura mater was adherent to the bone nearly throughout its whole extent, an alteration which did not seem to depend on disease, the distinction between the two tables of the cranium entirely obliterated, and the texture of the bone more dense than common. The tunica arachnoidea was very firm and opaque; the veins beneath it were very small, containing but little blood. The brain was very firm and dense, and the convolutions very strongly marked; the sulci were wide and deep. The color was somewhat darker than common, and the whole feeling and appearance of the brain was as if it had been subjected to the action of alcohol. A small quantity of serous fluid was found beneath the tunica arachnoidea. The cortical portion of the brain was extremely thin, being less than an eighth of an inch in thickness. In the ventricles nothing unusual was discovered. The pineal gland was extremely small, and contained no particle of gritty matter. The cerebellum was thought to be disproportionately small.

On removing the sternum, the lungs collapsed throughout, and exhibited the cavity of the thorax of unusual capaciousness. The cartilages were ossified, but were easily divided by a strong knife.

The pleuræ appeared perfectly free from every mark of disease, except in both sides of the thorax there was adhesion at the apex of the lung for a small extent; at this part a very superficial portion of both lungs was hepatized, but without any mark of recent disease. Spots of black pulmonary matter were very abundant on the surface of the lungs. The substance of the lungs was free from disease, with the exception above stated.

The heart was of small size and without fat. The pericardium was adherent to a small part of its anterior surface at the base. The cavities were examined in the course of the blood from the right auricle to the aorta, and no alteration of structure from the most perfectly healthy state could be discovered in walls of the cavities, the fossa ovalis, the tricuspid valves, the semilunar of the pulmonary artery, the mitral valves, and the semilunar or sigmoid of the aorta, except perhaps that these latter discovered a slight degree of rigidity at their attached margin, but by no means such as to interfere with their flexibility and free motion. The arch of the aorta, and several inches of its descending portion, were found to be in perfectly healthy condition, except two or three needle-like spiculæ of bone.

On opening the abdomen, the stomach appeared smaller than common, and contracted about its middle, as if a band were tied round it, and at this part its coats felt solid and much thickened. On opening the stomach, it was found that its middle por-

tion, including about a third of its extent, and making a complete circumference of the viscus, presented the appearance of schirrus, and was contracted so as hardly to admit the passage of a finger. This contraction divided the stomach into two portions, of which the superior or cardiac portion was the most diseased. The mucous coat was corrugated, and dark colored, with ecchymosed spots and points. About the middle of the great curvature was a superficial ulcer of an inch in diameter. The pylorus, the cardiac orifice, and the æsophagus, were in a healthy condition.

The liver was natural—the gall bladder enlarged to twice its natural size, filled with thin chocolate colored bile, and a calculus of the size and shape of a small nutmeg. The gall ducts pervious and natural. The spleen was adherent to the diaphragm and omentum, was externally firm, white and of a cartilaginous appearance, and its internal substance dark colored and semifluid. Small intestines, contracted, dark colored, and resembling in color the sphacelated limb. On the mucous coat, which was chocolate colored, the bloodvessels were very turgid, the valvulæ conniventes slightly thickened. The large intestines were more free from disease, the valve of the cœcum perfectly natural in structure. Both kidneys contained on their surface and in their substance several small hydatids. The ureters were pervious and natural. The bladder was filled with urine, and presented a perfectly natural struc-

ture, except the interlacement of the fibres of the muscular coat was more distinct and prominent than common. The prostate gland was not enlarged, and presented nothing unnatural to the feeling.

It is perhaps a fact worth noticing, that there should have been so little derangement of structure in the parts last described, which are so commonly diseased, in advanced life. On the evening before his death, his motions indicating uneasiness about the bladder, his urine was evacuated with a catheter. Not the least difficulty was experienced in passing the instrument.

The descending aorta and the iliac arteries were flexible and free from ossification.

APPENDIX.

A.

EXPERIMENTS ON EVAPORATION.

THE Committee are aware that the fact of evaporation producing cold was known a few years previous to the date of the following experiments. But it is hardly probable they could have been promulgated in this country. The originality of the experiments must therefore be a matter of some uncertainty.

"The 16th of June, 1758, my thermometer being at 68°, I touched the foot of it with a feather dipped in spirit of rosemary, which was not quite so strong as proof spirit. The mercury presently began to lower, and in a few minutes got down to 63°, —just 5° less. As soon as the thermometer had risen to its former standing height, I touched the foot with spirit nitri dulcis, which immediately produced the same effect,—and in about four or five minutes, brought the mercury down 5°, which (the evaporation being finished) began to rise again in about six minutes,— and in fifteen minutes regained its proper standing height. I soon after applied water, which had stood in the same room all the day before, (as indeed both the above mentioned liquids had,) as above, when it lowered the mercury 2°, namely from 65° to 63°, in the space of about two minutes. I then, in the fourth place, took a feather, and holding it in my mouth, wet it with saliva, and touched with it the foot of the thermometer, when the mercury was standing at 65°, which in three minutes and a

half, fell down to 63°, although upon its first application, it rose a little, perhaps a third of a degree,—which fully shows that cold is somehow produced by evaporation."

B.

REFLECTIONS ON TIME.

Of his philosophical habit of viewing all subjects, and of seeking a rational mode of accounting for phenomena, the following thoughts, extracted from a little memorandum book found among his papers, may be taken as an early specimen.

"*Of Time.*—Sunday, July 28th, after 10h. eve'g,—1751. Time seems to bear the same relation to infinite duration, as place does to infinite space,—they are neither of them any thing till they are measured, or bounded. There is one property of time, which is apparent, I believe, to every one who considers any thing about it, (I am sure it has been so to me ever since I have been able to measure time,) which is perhaps something difficult to account for;—that is, that the last year always appears shorter than any other with which the observer can compare it. I believe the reason of it may be something like this; viz. that the oftener any idea passes the mind the more slight is the trace that is left behind it. In short, the same idea may pass the mind so often, and become so habitual, that the mind shall not reflect upon it at all. For instance, the first time a man, not born there, sees the city of London,—the concourse of people, the magnificence of the buildings, &c.—the traces left in the mind are deep, and perhaps if he should never see London again, yet he would never forget the first impression. But let him take up his abode there for any length of time, and every day he will be less and less affected with these objects:—at length he will pass crowds without noticing them,—of the magnificence of the buildings he will no more be sensible,—nay, he will hear bow-bells ring without knowing it. This, I say, seems to be the case before us:—spring and autumn have nothing new in them to one who has seen them fifteen or twenty times over,—and summer's heat, or winter's cold pass equally unobserved.

But if to one in the bloom of life the year appear so short, and the seasons all blended one with another,—what must the last year be to one fifty or sixty years old? Methinks time can then scarcely be measured,—and ages then appear like years to youth. Yet time is still measured out by hours, days, months, and years, —all of the same length as they were before. What then, if they still appear shorter to me,—to me they are shorter. Oh! may I have time to repent."

C.

SEPTEMBER STORM OF 1815.

The months of August and September, were remarkable for storms and violent tempests upon the ocean, from the line to our latitude. On the 23d September, the wind being at N. E. in the morning, between 7 and 8 o'clock, the wind began to blow a storm, which continued with great violence, nearly approaching to a hurricane, till 2 o'clock, when it began to abate. It blew down the tops of many chimneys, blew in many casements, threw down Lombard poplars, Peach trees, Apple and other fruit trees. But this town suffered comparatively little. The storm seemed to be most severe about Providence, where the lower parts of the town were inundated by the rise of the water in the river, 14 or 15 feet higher than the usual tides, vessels were driven far up on the land, houses, barns, stores, were blown down or washed away by the tide, to the immense destruction of goods and property of every kind. The storm extended northwardly beyond the river St. Lawrence, but how far we have not heard; on the 20th, (three days before this,) a most violent hurricane was felt at Turks Island, which did immense damage, and more than any other we have heard from; among other losses 'tis said 400,000 hhds. of salt were destroyed.

N. B. The blast was so violent, that it blew the spray of the salt water of the ocean from the sea coast into the country 30 miles or upwards; most probably 90 miles, certainly as far as

Worcester, which destroyed the verdure of the leaves upon all the trees—blew all the apples and other fruit to the ground, and injured but did not destroy, the Indian corn—threw down fences and barns, and killed cattle, but happily few men were lost in this vicinity, though southerly ten or twelve persons were killed and drowned in various places. We have no record of any storm equal to this, since the settlement of the country.

D.

DYSENTERY OF 1761, AND DR. HOLYOKE'S TREATMENT.

In the beginning of September, of this year, a dysentery began to prevail, though there were a few seized with it in the middle of August, and it had attained to its height in some towns, (particularly in Marblehead, where it carried off great numbers,) before it grew rife with us. In general the stools were not very bloody, and many had not any severe tormina; in most it came on with a slight chill or rigor, and pains of the limbs, particularly of the thighs and legs, and great prostration of strength; but few had any great nausea at first. The stools, in most, degenerated from a lax thin consistence, to mucous slime tinged with blood; in many the fever was inconsiderable, but the case was commonly worse in proportion to the degree of it. The general method which succeeded most frequently, and which indeed seldom failed, if gone into early, was this; if there was great nausea, I began with an emetic of Ipecac: and Ant: Vitr: Cer: but in some I began the cure with a dose of Ant: Vitr: Cer: per se, unless, (as sometimes I was forced to,) I disguised it by adding Rhubarb. I generally gave it to adults in this dose and manner; I took about 6 or 8 grs. of the Ant: Vitr: Cer: and put 4 or 5 grs. in one paper and the remainder in another, directing the largest part to be given immediately, as soon as I was called, whether at morning, at noon, or night, in a little molasses, or the pulp of a roasted apple, and the remainder of the dose in 3 hours, if the first did not operate in that

time. This method of giving it, generally secured the operation of a medicine, in its own nature sufficiently precarious; this medicine most commonly answered best, when it operated very freely, though in some few instances it occasioned an *hypercatharsis.* I directed this purge to be wrought off with water gruel, ordering also frequent and large draughts of a decoction of Marsh Mallows and Comfrey roots, in water or milk and water. At night I gave an anodyne, generally of Liq'd Laudanum, the next day I repeated the Ant: Vitr: Cer: in the same manner, though in an increased dose, for I almost universally found, that if the first dose did not overwork, the second, if not increased, would scarcely work at all; and I constantly gave an anodyne at night while the disease continued, unless the pain and tenesmus were inconsiderable, or some very material circumstance forbade it. I continued this purge every day, or every other day, as the patient's strength would admit, till the stools began to put on a more healthy appearance; and the pain and tormina abated; as soon as I experienced this to be the case, I gave the following decoction: ℞ Lign: Campescan: Ras: ℥ i Aq: Bullient. lb. iij coq: ad lb. ij. Cap: ℥ ij secunda quâque horâ—this almost always mitigated the pains and rendered the stools of a good consistence, and less frequent, and many dysenteries were cured this season, with this purge and decoction.

E.

LETTER ON MERCURIALS.

From the New York Medical Repository, vol. i. p. 500.

A letter to Dr. —— ——, in Answer to his Queries respecting the Introduction of the Mercurial Practice in the vicinity of Boston, Mass. By Edward A. Holyoke, M. D., of Salem, Mass.

Dear Sir,

When, upon reading some late English publications, you find the exhibition of mercurial medicines in inflammatory diseases recommended as a *new* practice, though the same is so common

and frequent in this vicinity; you naturally inquire how long this practice has been in vogue among *us*, and by whom, or by what means, it was first introduced?

I know not whether I shall be able to make you any very satisfactory answers to these queries: I will however endeavor to give you all the information I am possessed of.

A physician from Scotland, who, as I have heard, was a disciple of the celebrated Pitcairn, and who was an intimate acquaintance of some of the first practitioners in Boston, and its neighborhood, about 60 or 70 years ago, was much in the habit of administering mercurials, and, as I have heard, much promoted their use among us, if he did not originate it.

This practice was much promoted, too, by the writings of Dr. Cheyne, then, and for some time after, much read by physicians here.

But what probably most contributed to give the faculty a high idea of this medicine, and to bring it acquainted with its virtues and uses, was the happy effect it was found to have, in checking the progress of a most formidable disease, which broke out in this part of America about the year 1734 or 1735, and made cruel havoc, sweeping off multitudes of children, wherever its baleful influence extended: I mean the disease at that time called *the throat distemper;* which I suppose to have been of the same genus with Dr. Huxham's *malignant ulcerous sore throat*, though it was, I believe, much more frequently and rapidly fatal then, than it has appeared of late years among us, or than it has been at any time in Europe. No remedies, we are told, were for some time of any avail, to stop its career, and almost all who sickened, died. At length recourse was had to mercurials, as *turpethum minerale and calomel*, and by these, aided by antiseptics, &c. physicians were enabled to make some successful opposition to its ravages.*

* I remember to have heard a little anecdote, which may be worth relating on this occasion. A practitioner in a neighboring town, of great repute and extensive practice, being called to attend a young woman dangerously ill of this distemper; having ordered her, among other things, 4 or 5 grs. of calomel, was astonished the next day to find her relieved, greatly beyond his expectations. Upon inquiring of his pupil, to whom he had given his directions, whether his prescription had been followed; he

It was natural to extend the use of so efficacious a remedy to other disorders, and being found or thought useful in many other cases, it became accordingly much employed.

But at what period, or by whomsoever the mercurial practice might have been introduced, in this part of the country, this is certain, that upwards of 45 years ago, it was in common use, in pleurisies, quinsies, inflammatory rheumatisms, and other phlegmasiæ, with several gentlemen who were at that time of the first repute as physicians. And this practice was not only adopted by their pupils, but by many other practitioners in the vicinity, and has not, since that time, been wholly laid aside, though I believe it has not been so much in vogue lately, as it was from 30 to 45 years ago. The modern European medical writers, who are most consulted and followed, by the faculty here, being totally silent with respect to the exhibition of mercury in fever and inflammatory diathesis, has, I doubt not, been the occasion of its running into disuse of late. The practice has, however, been still kept up by many, and will doubtless go on increasing, now European writers give it their sanction.

An idea that mercurials were improper, if not injurious medicines, in inflammatory cases in general, seems to have been adopted by physicians in Europe;* but certainly without just foundation, if the above account deserves credit; or if we may believe several European performances lately published; particularly a paper written by Dr. Wright, and inserted in the 7th volume of *Medical Facts*, entitled, *Practical Observations on the Treatment of Acute Diseases, &c.* The encomiums Dr. Wright bestows upon the administration of mercury, in a variety

found that his patient had taken 30 grs. of calomel, instead of 4 or 5, to which mistake he attributed the cure. From this time forward in very dangerous cases, he used the medicine in much larger doses than before.

* I well remember, that, about the year 175–, Dr. Charles Russel, a young physician, (who had been pupil to a gentleman who employed mercurials in his practice very freely,) then lately returned from London, where he had been some time attending at a public Hospital, (Guy's or St. Thomas',) informed me, that upon his relating to the medical gentlemen there, the common practice in this part of America, of administering mercurials, particularly calomel, in inflammatory disorders, that they expressed great surprise at the account, and told him they should have apprehended the most fatal consequences from such a practice.

of acute cases, so well accords with our long experience of its efficacy and safety, in this country, that every practitioner amongst us, who has been in the use of it, will readily accede to them.

For my own part, I profess myself to have been in the habit of prescribing this mineral ever since the year 1751 or 1752. About that time, pleurisies and peripneumonies were remarkably prevalent, and might be called epidemical; the practitioners of this place made free use of it at that time, and, as we found its effects beneficial, have continued to employ it in similar cases ever since.

It is not pretended, however, that this practice is universally successful, or that it is admissible in all subjects: some persons, as experience shows, cannot bear mercury; a great degree of debility, and irritability, being the immediate consequence of its exhibition, even when given in very moderate doses. Others, from great tenderness and irritability of bowels, seem incapable of admitting a quantity of the medicine sufficient to affect the system. And others, from a certain peculiarity of constitution, though the bowels bear it well, are but little apt to be affected by it, although it be taken freely, and for a considerable length of time. But so far as my recollection serves me, I have never known a failure in pneumonia, where the patient began to take it early, could bear it well, the mouth became sore, and a gentle ptyalism came on in a few days.

The preparation of mercury most commonly made use of was mercurius dulcis, or calomel; in larger doses joined with some purgative, when designed to act as a cathartic; and in smaller doses, of one or two grains, as an alterant, or when the intention was to affect the system, and then it was frequently combined with *camphor*, and sometimes with some preparation of *antimony*, and sometimes with small doses of *opium*; or with all of them together, as the prescriber judged most proper; though, in some cases, the native mercury, rubbed down with terebinth, &c. was preferred.

Besides these, the *turpethum minerale* was often given in a few grains, (from 1 to 4,) with a little *ipecac*, as an emetic; than

which the *Materia Medica* does not, perhaps, afford one more certain or more efficacious; especially in inflammatory quinsies, the croup, or generally when tenacious phlegm or pituit abounds in the stomach. Small doses, too, of this last preparation, as one third, or half a grain, given in a little Cons. Rosar. or honey, and repeated at short intervals, as two or three hours, have been found to be most powerfully expectorant, in pneumony, where the lungs have been greatly obstructed and loaded with viscid phlegm; and I have seen a number of instances, where patients who seemed on the point of suffocation, were snatched from the jaws of death, by a few doses of this medicine.

My intention in this letter, however, you are sensible, is not to enter into the mode of exhibiting mercurials, much less to treat of any particular disease; my design is merely to answer your queries; to corroborate Dr. Wright's practice, by showing how it corresponds with a practice that has long been common among us here; and to show, that, in this part of the country at least, the same medicine has been successfully employed, certainly for nearly half a century, and probably much longer.

I am, &c.

E. A. HOLYOKE.

Salem, December, 1797.

F.

ACETAS PLUMBI IN HÆMORRHAGE.

The following is from a MS. called Hints, Facts, and Observations.

In Menorrhagia, when other medicines, such as Tr. Kino, Terra Japonica, Pulvis Styptic. Alum Whey, &c. have failed, I have had recourse to the Sacchar. Saturni, with the most beneficial effects; and in about 7 or 8 cases, in which I have administered it, it has never once failed in checking the complaint.

The mode of administering it which I have adopted is this:

℞ Pulv. Sacch. Saturn: gr. iv.
Pil. Anodyn, (nost.) gr. v. m. ft. Pil. No. v.
Cap. æger, No. 1, 4ta quâq. horâ.

The same medicine, administered in the same dose and after the same intervals, we have found to succeed immediately in Hæmaturia, after the unsuccessful trial of the most approved remedies: before 4 pills were taken, the Hæmorrhage abated, and by the time 10 were taken it was entirely suppressed, and the patient reinstated. In another instance, 5 of the above pills were found to check the disease immediately.

I was induced to make trial of this remedy by reading in the Edinburgh Medical Commentary, vol. xii. p. 190, a letter from Dr. Reynolds to Sir George Baker, on the successful use of lead in Hæmorrhages.

G.

BALSAM OF FENNEL.

Take equal parts of Cream Tartar, (or which will answer as well of White Tartar, if it be very good,) and common Nitre, let them be reduced in a mortar to a fine powder and thoroughly mixed together; put them into a flat iron vessel and place it in a chimney, set it on fire by putting into it a small live coal or a red hot iron, when the deflagration is finished and the cake of salt is cool enough to handle, take it out and with a knife scrape off all the black part, and powder it in a mortar; it will be found reduced in weight one full half. Put the powdered salt into a glass vessel capable of containing three times its quantity, add pure water to it by an ounce or two at a time, stirring it after every addition of water very briskly with an iron or strong wooden spatula, and adding gradually about ℥ iss or ℥ ij of the chemical Oil of Fennel to each pound weight of the salt. This stirring or violent agitation of the mixture, ought to be frequently

repeated for a day or two, after a sufficient quantity of water has been added, which will be when a quantity nearly equal to the salt is added.

This Balsam, as it is very improperly called, is a very useful remedy where an alkaline medicine is wanted, particularly for infants, or in those cases in which acidity is predominant in the stomach, and is diaphoretic and diaretic.

H.

SAL ÆRATUS.

The discovery of the mode of preparing this very elegant and valuable form of the vegetable alkali, was the result of accident. Dr. Holyoke discovered that a quantity of pearlashes which he purchased, had an unusual appearance, and did not deliquesce in the air. On inquiry, he found the cask containing the article in question, had stood in a distil-house, near the cistern, for more than a year. The effect was soon traced to the fixed air of the cisterns, and thus his mode of preparing the Sal Æratus was brought to its present perfection. This account was substantially inserted in the ii. vol. New York Repository, in 1798.

To the Massachusetts Medical Society.

As alkaline medicines are frequently called for, and in many cases the exhibition of them in pretty large doses, and those often repeated, are judged necessary in some diseases of importance, I would beg leave to lay before the Society a few observations on the Sal Æratus.

This salt consists of an alkaline basis, such as Salt of Tartar, Pearlashes, or any pure fixed vegetable alkali, fully saturated with the acid of *fixed air;* an easy and cheap method of preparing it is this:—Dissolve any quantity of pure fixed vegetable alkali, whether mild or caustic, in fair water, in such a proportion as that the water may be nearly saturated with the salt; let this solution be filtered, and put into a wide mouthed vessel of

glass or stone ware, let this vessel be covered in such a manner as not to exclude the liquor from a pretty free communication with the air, and yet so as to secure it from dust or other impurities; the vessel thus filled and prepared, should be slung with strings of a convenient length, and hung suspended in a distiller's vat or cistern, over the fermenting liquor, or which may be more convenient, in an empty cistern, which has been frequently employed to ferment in, and which still contains the fixed air, as they all do for a long time after being used, unless purposely cleansed. In this situation it should continue for a month or more, in which time, if the jar be examined, it will be found to contain a considerable quantity of salt, from which the liquor must be poured off, and when the salts are drained, on some bibulous paper and dried, they are fit for use. The same liquor may be again saturated with new alkali, and the same process repeated if thought proper.

But there is another mode of preparing this salt, which will answer as well, perhaps, for any medical purpose, which is not attended with so much trouble: take a wooden box made of a wide hoop, such as with us is commonly called a sugar box, let its side, as high up as its cover will permit, be bored with four or five holes of about $\frac{3}{4}$ of an inch diameter, and at nearly equal distance; put into this box as much dry alkaline salt as will fill it nearly up to the holes bored in its sides; let this box be covered with its lid, and slung by strings, and suspended in a distiller's cistern, as in the last case; and the fixed air which has free access to it by the holes in the side of the box, will in a few weeks so impregnate the alkali, as to produce a perfect Sal Æratus. But in order to accelerate the process, the box should once in a week or two be taken out and the salt stirred about with the hand or a stick, so as to expose a new surface to the impregnating air. I have prepared this salt in both these ways, and think the first most perfect, the last much easier and expeditious.

The salts prepared in the first of these ways, shoot into beautiful crystals, which seem to be oblique angled parallelopipeds; which detonate in the fire with the crackling noise of sea salt; does not deliquesce or effloresce in the air; has a mild alkaline or subalkaline taste; is capable of dissolving in water; (water

dissolves about one fourth its weight, in a heat of 45° of Farenheit's thermometer ;) and is decompounded by the addition of any, even the mildest kind of acid ; indeed without the addition of any acid, merely by dissolution in boiling water, for hot water has very little affinity with fixed air, although cold water may be impregnated with an equal bulk of it.

When this salt is prepared in the second method, there is no appearance of crystals, but is, as far as I can judge, as well saturated with the acid of the air as that prepared by the first process. Now a salt combined of two such useful principles as vegetable alkali and fixed air; so little disagreeable to the palate, and so easily decompounded in the first passage, must, I think, be a very useful medicine. As an antacid it perhaps exceeds any thing in the Materia Medica. In acidities of the stomach, I have often exhibited it with great advantage ; either simply dissolved in water, or in infusions of Rhubarb, or of Lign. Quass. or in mixtures with absorbents and some simple or cordial waters ; or in powders with Rhubarb or Columbo : and in the antiemetic effervescing mixture of Riverius, it by far exceeds the common alkali, as being much more palatable, and more effectual, as it contains so much more fixed air, (in which the virtues of this mixture is supposed principally to reside,) than the common alkali. When given with this last intention, I dissolve ʒij of the Sal Æratus in vi. spoonfuls of water, one spoonful of which is to be poured into as much lemon juice, for a dose, which the patient must hold in his hand near his mouth, and instantly, even whilst they are mixing, throw it down ;—it is never complained of as a disagreeable draught. Perhaps it might be better to take down first a spoonful of the acid, and then swallow the solution of the salt immediately upon it, as it may very easily be done ; but I have never tried it in this way.

And as fixed air is so powerful an antiseptic, we may, I think, very naturally suppose this salt might be advantageously exhibited in putrid cases, in the form of the effervescing mixture, as in dysenteries, putrid ulcerated throats, &c., and in many cases make a most useful addition to the bark.

But there is another disease, of the first magnitude, in which this remedy is highly recommended by the late celebrated

Cullen, in the 13th chapter of the 2d volume of the last edition of his Materia Medica. I mean in calculus of the bladder; in these cases he advises it to be given liberally, and its use continued for a long time, which he says relieves the disease more certainly and more completely than any other remedy. As I do not find this medicine so much known or employed as I think it deserves, I have taken the liberty to trouble you with this paper, which I hope may conduce to bring it into more general use.

Note. It should never be exhibited in a vehicle made hot by the fire, as the heat almost immediately discharges part of the fixed air, and decompounds it. It may not be amiss to mention, though it be foreign to the views of this Society, an economical use to which this salt may be applied in preference to pearlashes, and that is, as a leaven to produce fermentation in dough; for this purpose a small quantity of this salt has a much greater effect than the pearlashes. It is frequently useful in the heartburn; and that sickness, and acidity of stomach, which breeding women so much complain of. About ʒss of it should be dissolved in a pint of an infusion of Quassia, and taken in the dose of two large spoonfuls, four times a day.

Beside the diseases mentioned above, to which this medicine is applicable, several others will readily suggest themselves to the physician, who is acquainted with its usefulness, and seem to recommend it to a place in every apothecary's shop.

I

ACCOUNT OF THE SMALL POX HOSPITAL, ERECTED AT SALEM, 1773.

The latter part of the year 1773 was a very sickly season in Salem. In the latter part of summer and autumn, cholera, dysentery, and fever were very rife. Dr. Holyoke's incessant fatigue brought on a fever, which confined him to his house from September 16th till October 4th, and left him unable to resume his business till the last of October, when the small pox broke

out, and was of so fatal a nature, that 16 persons died of the first 28 who were attacked with it. At a town meeting, November 1, permission was given to sundry inhabitants who had subscribed one thousand pounds to defray the expense, to erect a hospital for the purpose of innoculation. By the great diligence and assiduity of the Committee, the cellar of the principal building, 2 stories high, 20 feet wide and 140 feet long, was dug, the foundation laid, the frame raised, and partly boarded before dark on Saturday, although the work had not been begun nor the materials even purchased on the Wednesday before. This Hospital was placed in a plat of ground in the south east part of the great pasture, containing 12 acres, surrounded by a good stone wall, and consisted of two houses, the largest containing 12 rooms, each 20 feet square, and the smaller, 4 such rooms. So vigorously was the measure prosecuted, that although all the materials except rocks were carted two and a half miles, the whole was completed in 30 working days, commencing on the 3d of November; and on the 9th of December following 132 patients were admitted and innoculated. Our late townsman, the venerable Timothy Pickering, was at that time one of the selectmen of the town, and was intrusted with a considerable share in the undertaking. It is well known that when he was concerned in an enterprize that regarded the welfare and happiness of his fellow citizens, sloth, inactivity, and unnecessary delay never retarded its completion. The first innoculator in this hospital was a Dr. Latham, who innoculated upon the secret plan called, from its inventors in England, the Suttonian, and the Salem papers of that day are filled with an interesting controversy which arose concerning this man and his practice, in which controversy, Rev. Dr. Whittaker, Mr. Occum an Indian preacher, Col. Pickering, and Mr. Dunbar the clergyman of the first church, were conspicuous names.

K.

LIST OF BIRTHS.

The following is a list of births, occurring in ten years of his practice, from 1790 to 1801, and is a memorandum of some interest to medical men.

Years.	*Boys.*	*Girls.*	*Total.*
1791	35	49	84
1792	53	34	87
1793	52	38	90
1794	45	51	96
1795	59	48	107
1796	47	53	100
1797	54	43	97
1798	53	47	100
1799	48	54	102
1801	46	35	81
	494	452	946

L.

LIST OF PUPILS.

Isaac Atherton,	came	1762,	remained	3	years.
Joseph Orne,	"	1765,	"	5	"
David Jewett,	"	1766,	"	3	"
William Paine,	"	1768,	"	4	"
William Clarke,	"	1772,	staid few months.		
Edward R. Turner	"	1772,	rem.	3	years.
William Goodhue,	"	1772,	"	3	"
Nath'l W. Appleton,	"	1774,	"	3	"
Francis Borland,	"	1774,	"	1	"
Edward Barnard,	"	1774,	"	3	"
Daniel Kilham,	"	1778,	"	1	"
B. Lynde Oliver,	"	1778,	"	3	"
Isaac Osgood,	"	177–,	"	3	"
Nathaniel Parker,	"	1779,	"	3	"
Thomas Farley,	"	1782,	"	4	"

Abiel Pearson,	came	1782,	rem.	3	years.
James Griffin,	"	1786,	"	2	"
Ebenezer Learned,	"	1788,	"	3	"
Nathan Read,	"	178–,	"	1	"
*William Harris,	"	1788,	"	1	"
J. D. Treadwell,	"	1788,	"	3	"
†Edw'd Wigglesworth,	"	1790,	"	1	"
Nathaniel Lee,	"	1791,	"	2	"
Thomas Pickman,	"	1791,	"	3	"
John Preston,	"	1791,	"	3	"
James Cook,	"	1795,	"	3	"
James Jackson,	"	1797,	"	2	"
Nath'l Bradstreet,	"	1798.			
Samuel Gerrish,	"	179–.			
Mathew Spalding,	"	1800.			
Samuel Hemenway,	"	1801.			
Samuel Trevett,	"	1804,	"	2	"
——— Flagg,	"	1804.			
John B. Brown,	"	1808,	"	1	"
Edward A. Holyoke,	"	1817,	"	1	"

Total number, 35—13 are now living.

M.

LETTER OF DR. HOLYOKE.

The following are extracts from a letter to his wife, dated at a period which gives a thrilling interest even to the domestic record of the great events, which were taking place.

Salem, Friday afternoon, June 16th, 1775.

. . . . As to the Military Operations here I am not in the secret, so can give you no news of that sort, though the general Voice is that there will soon be an Engagement, and perhaps it may happen before this reaches you. 'Tis said our People intend to take Possession of Dorchester Hill, to-night, and

* Afterwards an Episcopal clergyman in New York.

† Died before he finished his studies.

whenever they do, it is also said they will be attacked by the regulars. I pray God to prevent Bloodshed, but I fear there will be a good deal. . . . . .

Sunday, P. M. . . . . I am heartily glad you are not here, just at this Time; you would, I know, be most terribly alarmed. We had an appearance yesterday of a most prodigious smoke, which I found was exactly in the direction of Charlestown, and as we knew our Men were entrenching on Bunker's Hill there, we supposed the Town was on Fire, and so in fact it proved. For in the evening (that is last evening) we were told the Regulars had landed at Charlestown under cover of the Smoke from the buildings they had set fire to, and had forced the Entrenchments on the Hill. . . . . Among the missing is Dr. Warren, who it is said commanded a regiment. Col. Bridge of Billerica, is said to be among the slain, and Col. Gardner of Cambridge had one of his thighs shot off. The commotion was so considerable, though none of our men went to the Battle, (as the Northwest part of the Province and not the Seacoast was called out upon the occasion,) that we had but one Meeting House open in the morning. And this afternoon, while some were at Meeting and others talking over the action of yesterday, we were alarmed with an appearance of Smoke at Marblehead, which broke up the meetings, and the People with their Engines and Buckets went over to extinguish the Fire, and I among the rest, though I should have been glad to have been excused, on account of the prodigious heat of the weather, but as I thought that under Providence I owed the preservation of my House to the assistance from Marblehead, when we were in the utmost hazard, I could not dispense with going; but we were stopped when about half way there with an Account that the Smoke arose from a field of Grass on Fire, and that no building was hurt, so I returned home and am now set down to cool myself and give you this account. . . . . Dr. Warren is since known to be killed. . . . . .

Tuesday Noon, June 20th, 1775. The Destruction of Charlestown by Fire, (for it is all burnt down,) has struck our People at Salem with such a panic, that those who before thought the

Town perfectly safe, are now all for removing off; but I cannot be apprehensive of any Danger we are peculiarly in. 'Tis certain the Aim of the Regulars is to get Cambridge, to defeat our Army, and to destroy our Magazines there,—and as Charlestown lay in their way, and by setting Fire to it they were able to land their Men under cover of the Smoke which blew directly upon the Hill, where we were entrenched, they burnt it and succeeded by that very stratagem, for our Men did not discover them till they were within Gun shot of them. . . . . .

N.

RECANTATION OF TORYISM.

Salem, May 30th, 1775.

Whereas we the subscribers, did, some time since, sign an address to Gov. Hutchinson, which though prompted to by the best intentions, has nevertheless given great offence to our country; We do now declare, that we were so far from designing by that action to show our acquiescence in those acts of parliament so universally and justly odious to all America, that on the contrary we hoped we might in that way contribute to their repeal, though now to our sorrow we find ourselves mistaken.—And we now further declare, that we never intended the offence which this address has occasioned, and that if we had foreseen such an event, we should never have signed it; as it always has been and now is our wish to live in harmony with our neighbors, and our serious determination to promote to the utmost of our power, the liberty, the welfare and happiness of our country, which is inseparably connected with our own.

Signed by 12 *persons.*

O.

RECOLLECTIONS AND MEMORANDUMS OF PAST EVENTS.

The first thing that I entirely remember was the funeral of Aunt Oulton, which was on July 18, 1732.

The first Aurora Borealis I ever saw, the Northern or rather

Northeastern Sky appeared suffused by a dark blood-red coloured vapour, without any variety of different coloured rays. I have never since seen the like. This was about the year 1734. Northern Lights were then a novelty, and excited great wonder and terror among the vulgar.

In 1737, Square Toed Shoes were going out of fashion; I believe few or none were worn after 1737. Buckles instead of Shoe Strings began to be used about the same time, but were not universal in the country towns till 1740 or 1742. Very broad brim'd Hats were worn as early as I remember. My father had a beaver whose Brims were at least 7 inches; which when he left off, I remember I used to wear in the Garden, or in a shower, by way of Umbrella. They were all cock'd triangularly. And pulling them off by way of salutation was invariably the Fashion by all who had any Breeding.

Boots were never worn except on horseback, or snowy or rainy weather. They frequently had large broad Tops that reach'd full half way up the Thigh. But Boots did not come into general use till the close of the revolutionary war.

Funerals were extravagantly expensive. Gold Rings to each of the Bearers, the Minister, the Physician, &c. were frequently given, when the family could but ill afford it. White gloves in abundance, burnt wine to the company, &c. &c. This extravagance occasioned the enacting sumptuary laws, which though they check'd did not entirely suppress the complaints till the commencement of the revolutionary war.

In 1749, it was reported the train band list of the town of Marblehead, was equal to that of the town of Salem. The difference is now very great. I suppose Salem has at least twice the number of Marblehead.

[1749.]* The Houses (in Salem) were generally very ordinary. The first handsome house was built by Mr. Jno. Turner, then Col. Pickman, then Mr. J. Cabot, &c.

There was but one ropewalk, and that was on the neck, inside the gate. But one tavern of any note, and that was an old house at the corner now occupied by Stearns' brick store. The

* These remarks refer to the period of Dr. Holyoke's residence in Salem, preceding the revolution.

Houses for publick worship were only the old (first) church—the eastern parish—the secession from the first church—the Friends' meeting house, and the Episcopal church.

The number of Inhabitants was estimated at between 5 and 6000.

The Commerce of this town was chiefly with Spain and Portugal and the West Indies, especially with St. Eustatia. The Cod fishery was carried on with success and advantage. The Schooners were employed on the fishing banks in the summer, and in the autumn were laden with Fish, Rum, Molasses, and the produce of the country, and sent to Virginia and Maryland, and there spent the winter retailing their cargoes, and in return brought Corn and Wheat and Tobacco. This Virginia voyage was seldom very profitable, but as it served to keep the crews together, it was continued till more advantageous employment offered.

There were a few Chaises kept by gentlemen for their own use, but it was no easy matter to hire one to go a journey.

P.

POETICAL SCRAPS.

The following poetical scraps are introduced merely as matters of curiosity, and without the most distant idea of claiming for Dr. Holyoke the meed of poetical excellence. They serve to show what common observation will verify, that most men at some period or other of their life seek an utterance for the vividness of their thoughts in the flow of measured numbers. The first piece is a production of an early period of his life, and occasioned by the mildness and beauty of the season. The second short "fragment" bears the date of 1823, when the author was 95 years old, and is a playful protest against the innovations of modern customs.

WINTER—1753.

Hail hoary Time! whose swift returning course
Instead of blust'ring, brings us moderate Days;
Whose Air resembles more the vernal Breeze

When from serener skies and purer Air
The gen'rous Zephyr drives the chilling blast,
And poisonous Foggs and Vapors all disperse.
The vital Fluid by our Lungs inhal'd
Revives the sluggish Blood with active Spring,
And swifter drives the purple Current round,
Replete with Life, with vigorous Health endow'd.
Hail charming Year! whose happy Seasons bring
Hygeia beauteous! Goddess heav'nly born!
The Solace of Mankind! without which none
Has ever yet been blest. The proudest King
Upon his gorgeous Throne, tho' suppliant Crowds
Wait at his Footstool and his Beck attend,
Yet if, averse, thou should'st forsake his Court
And he with Sickness or with Pain distrest,
Unmindful of the Blessings Heav'n bestows,
Forgets his Grandeur and his royal Pomp,
His Crown, his Sceptre gladly would exchange
For Health or Ease; And thinks his meanest slave
Supremely blest, if on his ruddy cheek
Happy he views the Salutiferous Blush,
And easy Smiles pronounce him free from Pain.
But when Celestial Maid! thou deign'st to dwell
As oft thou dost, with Mortals doom'd to Toil
To Penury and Want, when there thou smil'st,
They willingly pursue their destin'd Task,
With cold and hunger combat, still with mirth
The jocund Year goes round, and Song or Dance
Forget not, but with Sports and Pastimes crown
Their Labor, and each vacant hour employ.

A FRAGMENT.

. . . . . and smoak'd segars!
Vile substitute for that white, slender tube
Our fathers erst enjoy'd, in Winter's Eve,
When the facetious jest, or funny pun,
Or tales of olden time, or Salem Witch,
Or quaint conundrum round the genial fire
The social hour beguil'd.

ARTICLE IX.

A DISSERTATION ON INTEMPERANCE,

TO WHICH WAS AWARDED THE PREMIUM OFFERED BY THE

Massachusetts Medical Society,

IN MAY, 1829.

BY WILLIAM SWEETSER, M. D.
Professor of the Theory and Practice of Physic in the University of Vermont.

[At the annual meeting in June 1827, the Society voted to offer a premium of Fifty Dollars for the best Dissertation which should be offered during the year, on the subject of Intemperance; and the Counsellors appointed a Committee to receive the Dissertation, and award the Premium. At the annual meeting in June, 1828, the Committee reported that no Dissertation had been received in season to be entitled to the Premium; and the offer was renewed for another year. Several Dissertations were then offered, and the Premium was adjudged to the following; which was read at the annual meeting in June, 1829, and is now printed by the Society, agreeably to the original vote on the subject.]

"Pass where we may, through city or through town,
Village or hamlet of this merry land,
——————————ev'ry twentieth pace
Conducts th' unguarded nose to such a whiff
Of stale debauch, forth-issuing from the sties
That Law has licens'd, as makes Temp'rance reel."
"Smith, cobbler, joiner, he that plies the shears,
And he that kneads the dough; all loud alike,
All learned and all drunk!"

A very slight acquaintance with the laws of the animal constitution, will serve to convince us that its wise Author never fitted or intended it for violent excitements. No matter whether we view it in a moral or physical light, it holds equally true that unduly excited action tends to the waste of those powers on which health and life depend. Death we know is sometimes the sudden result of violently aroused pas-

sion; at any rate, some one, or more, important function of life commonly becomes deranged, if the mind be long agitated by strong and turbulent feelings. The constitution cannot long react against the influence of intemperate excitements. If the springs of life are overstrained, if the functions are impelled into an unnatural state, the laws of the living economy are violated, and evil consequences inevitably ensue, bearing a relation to the nature, violence and duration of action of the exciting agents.

It would almost seem as though life was consumed by the very motions which are necessary to its existence; as if the stimuli required to sustain the actions of life, were the means tending ultimately to its extinction. We know that some cold blooded animals, accidentally excluded from the excitation of all stimuli, and having consequently only the most obscure vital actions, have lived to periods far beyond what we have any reason to believe possible under an active state of being. No limits in truth can be placed to the existence of some creatures, could they be continued in this dormant condition. Frogs and toads, as is familiar to every reader, have been taken from the interior of solid rocks, from the trunks of trees, and from depths of the earth, in which situations they must probably have remained for ages in a torpid state, and on exposure to air and light have immediately resumed their active state of being. Could these animals have maintained their existence for such a period if their living functions had been continued in an active and energetic

condition? No facts show us that they could. To be sure the life of these cold blooded creatures does not approximate to the elevated existence of the loftiest of the warm blooded animals; still we are forced to acknowledge a certain general analogy among all beings indued with life. At any rate, other things being equal, it does seem rational to suppose that the more the functions are urged above their natural standard of action, the sooner will their power become wasted, and consequently the earlier will be their extinction. It has even become a vulgar saying in relation to individuals who live freely and under the influence of strong excitements, that they *live fast.* And the saying is founded on sound inductive philosophy, for the signs of age are marked much earlier upon them, than on individuals subjected to less sensual excitement. View the voluptuary, even in the morning of his years; at the period when others are just beginning their career of usefulness, and it will be found that strong and unnatural excitements have borne him rapidly on in his course of existence. The pale and withered brow—the dim sunken eye—the feeble and nerveless arm—the infirm step, and the wreck of all his nobler powers, show us too plainly how prodigally life has been consumed. We behold youth manifesting all the marks of an infirm and decrepit old age.

Do not the inhabitants of tropical climes—in whom heat excites an early maturity, communicates its quickening influence to all the feelings, and accelerates all the functions of life—do not they, I ask, sooner ex-

hibit marks of age and decay than the more phlegmatic inhabitants of colder latitudes? It is at least most strikingly true of tropical females, who begin to decline, and lose the attractions of youth at an age when more northern dames are glowing in all the beauty and loveliness, and consequent power of their sex. Hence it is, that the inhabitants of tropical regions do not bear so well the effects of artificial stimuli, as the dwellers in high latitudes, whose vital actions are less rapid, and who have less natural stimuli to excite them. These statements may no doubt be met by many exceptions, but not enough to destroy their general truth.

Life has been aptly likened to the heavenly fire with which Prometheus animated his statues of earth. While this celestial flame continues to burn, all the manifestations of life are maintained, but with its extinction all the vital actions which it excited must cease. Now though this flame must at last go out, still its extinction may be hastened or protracted according as we artificially and irregularly excite it, or allow it to burn on steadily and equally.

Every judicious physician will rank the abstinence from all violent excitements—temperance, steady habits, calm and well regulated affections, among the most important conditions to the preservation of health, and consequently to the prolongation of life. It may be said that men of very different habits of life, of opposite characters have lived to extreme ages. A few instances may be adduced of men of the most intemperate

habits who have lived on even in health to a ripe old age; and such cases are sometimes very foolishly, not to say wickedly, cited to show that ardent spirits are not so destructive of health and life as is commonly represented. But the very importance attached to such instances, most satisfactorily proves them to be only exceptions, and very rare ones too, to a general rule. They are lucky escapes from the baneful effects of destructive habits, referrible perhaps to original energy of constitution, active and healthful pursuits, or other favouring causes not understood.

It is a truth which ought to be familiar to every one, but particularly to our own profession, that true and enduring tone or strength cannot be communicated to the animal body by unnaturally urging its vital movements. Actions to be lasting, ought to be steady and equable, and to maintain a relation correspondent to the capability of the organs destined to their performance. Destroy this necessary balance between action and power, and a pathological state must ensue. Over excitement wastes our energies, without supplying the expenditure.

Suppose it desirable to obtain the greatest possible amount of labor from an animal in any considerable length of time. Would any one of ordinary sense and judgment begin by impelling him to undue exertions—to efforts disproportioned to his ability? Would the practiced driver commence by worrying and stimulating him with the whip or the goad? To be sure he might thus be excited to quicker motions, and for a

little period to an increased exhibition of strength. But fatigue would soon begin to palsy his efforts, and he would much earlier become unfitted for service than under more gentle management. Now an individual, a laborer for example, who begins at the commencement of his task to excite artificially his functions, to whip and goad them on, if you will, to undue and overstrained exertions, acts on the same ill advised principle, as would the injudicious driver who expected to get labor from his horse in proportion to the frequency and power with which he applied the whip. Like this poor abused animal his functions would soon get wearied out by such inconsiderate management. The actions of inanimate creation, if strongly excited, are but of brief duration. The tempest and the earthquake soon spend their power, the winds go down, and the earth rests from its feverish agitation—but the stillness and desolation which follow, painfully exemplify the exhaustion and evil attendant on such unnatural excitations.

Every physiologist and pathologist, I trust, must be well aware that a course of unnatural stimulation cannot long continue operative on the living economy without inducing some morbid alteration in some of the vital tissues, and a consequent derangement in the function of the organ or organs, whose structure becomes thus affected. There can exist no perfect health unless the important tissues of life are in a natural condition. In the complex mechanism of the human body the anatomist detects certain elementary structures which are

denominated tissues, or membranes; several of these, each with its own peculiar nature, are combined together to constitute an organ. Several organs next unite their functions to accomplish a particular object in the economy, and get the name of an apparatus. Thus then the human body may be regarded as one great apparatus, all of whose parts work together for the maintenance of health and life. Within it are minor apparatus, subservient to more particular effects. These are resolvable into organs, and lastly the organs into tissues, and it is through the medium of these ultimate structures that the functions of life must be excited. Now as all impressions are communicated first to some of the tissues, if they are unnatural, and especially if frequently repeated, a change of structure will follow; then the function of the organ into whose composition the tissue enters will necessarily become deranged, and if it belongs to what we denominate an apparatus, the effect must be manifested in the grand result of the apparatus. Farther if it possesses high importance in the economy, the whole living machinery, from the necessary connexion and consent of its component parts, must partake in the derangement. Now in the habitually intemperate, morbid impressions are continually conveyed, either directly or indirectly, to the different ultimate structures, to the mucous, the nervous, the glandular, &c.; hence they soon become diseased, and more or less general derangement of function must ensue. Health dwells not with intemperance. How many do we not see daily, yield-

ing up all their best powers, for a little transitory sensual gratification?

Though intemperance is a term admitting of almost any latitude, we intend to restrict its use, so far as possible, to the abuse of distilled spirits. It is this species of intemperance, which is now exciting such intense and anxious interest among a large class of our enlightened population.

Though, other things being equal, particular textures and organs become associated with the morbid impressions resulting from the employment of spirituous drinks; in other words, though intemperance has its peculiar diseases, yet in the state in which we live, we can by no means always calculate upon the exact order or kind of its effects. We are born with, inherit from our parents, or acquire from accidental circumstances after birth, different conditions of physical structure, some peculiarities in the life of the tissues, which cause them to take on with great facility particular modes of diseased action, and which constitute what we commonly denominate predispositions. They are very readily called into activity by any causes which morbidly impress our organs. Intemperance then, operating on an individual strongly predisposed to a particular disease, would on a general principle more easily excite such disease than any other to which such predisposition did not exist.

Suppose an individual to labor under an hereditary disposition to phthisis pulmonalis, would not intemperance at some particular period of life be likely to

bring it into action? Or imagine him predisposed to insanity, to erysipelas, to scrofula, to gout, to dyspepsia, would not this habit be especially liable to develope such predispositions? And thus it is that we find all sorts of diseases following in the path of intemperance, and often meet with not a little perplexity in deciding to what extent it generates disease *de novo*, or merely tends to call into action some pre-existing diathesis. It will be readily conceived that different individuals would not be likely to suffer with equal facility from this habit. Naturally energetic vital powers, an exemption from morbid predispositions, active habits, &c. fortify the constitution to a certain extent against the deleterious influence of alcohol. But the firmest strength must finally yield to its destructive sway.

It is our province to point out only such diseases as are admitted to arise especially out of the habit under consideration. Not that all the affections and modifications of disease thus produced, can by any means be fully treated—circumstances greatly vary them, and it is not an easy matter to set limits to the diseases of intemperance; for though its influence is unquestionably exercised on some tissues with more facility than on others, yet it is specially confined to none. Excepting a few in which vitality is but feebly developed, there is hardly any vital structure, but intemperance may either directly or indirectly injure. The mucous, the serous, the glandular, the dermoid, the muscular and nervous systems of animal and organic life, all, all, may sooner or later, primarily or seconda-

rily suffer from it. But then all we purpose to do, all in truth we are able to do, is to bring in review a few of the most prominent and commonly observed deviations from healthy structure, and natural function, which to say the least, have a close relation with the habitual and free use of distilled spirits. Not that all these affections will be developed in every case, and they may arise, too, from other causes beside intemperance; yet in the intemperate they exhibit such modifications as will very generally direct us to their cause. But how are such various morbid alterations effected? What is the specific mode of action of ardent spirits, on the different tissues and organs of the human body? Why is their influence commonly exerted so much earlier and more seriously in some structures than in others? Such questions we can hardly be expected, with only our present limited physiological and pathological information, satisfactorily to solve. We may rationally believe that the altered condition of the circulation consequent on unnatural stimulation is capable of exerting considerable influence in the generation of morbid changes. Witness the violent and often irregular action of the heart; feel the pulse of a man under the exciting influence of strong drink; look at his eyes, his face; see how forcibly the capillaries are injected with blood, and with what unnatural energy this fluid is impelled to the head. Now can we expect that the delicate vital tissues, can always escape injury under such frequent condition of the circulatory function? Can we imagine that the nice structure of the

brain will remain unharmed, when day after day it is subjected to unnatural excitation, or is engaged and oppressed by the excess of blood which is determined to it? If from any cause, the naturally equable course of the circulation is habitually disturbed, and the blood unduly determined to particular organs, congestions, inflammations, and important lesions may be expected to ensue. The vital organs often suffer in violent inflammatory fevers, and why not in the frequently repeated inflammatory fever of intemperance?

The derangement of the organs of digestion, which is almost universal in the intemperate, communicates a morbid impression not only to the brain, but also to various other important organs. And no doubt very many of the disorders of intemperance arise out of the sympathetic influence of the apparatus of digestion. But physicians of the present day are too frequently reminded of the vast importance of its health, to the welfare of the economy at large, to neglect a due regard to it on all occasions.

But beside particular pathological conditions, we commonly find in the man who has been long addicted to intemperance, a peculiar modification of constitutional susceptibility and action; and this altered state of the system often modifies in a remarkable degree the character of his diseases, and establishes, not unfrequently, a new set of morbid predispositions. There seems no doubt but that some general change is effected in the physical structure of the body under the in-

fluence of the continued action of alcohol.* And it can hardly be questioned that alterations of organization, however minute, must necessarily modify the offices dependent on organization. Where we can detect a morbid condition of a tissue, its function, or the function of the organ into whose constitution it enters, is almost always more or less deranged. When therefore we meet with marked deviation of ordinary function in structures, whose minute anatomy perhaps has not been thoroughly investigated, or at any rate where no sensible material change is discoverable, would not analogy lead us to distrust our own powers of anatomical investigation, and still to refer such deviation to pathological physical condition? But without involving ourselves more intricately in such obscure questions, facts show us plainly enough that physiological—if any functions of the intemperate may be regarded in a physiological state—and pathological phenomena both undergo obvious modifications. If the drunkard has fever, it is not just like the fever of the temperate man. If he is attacked with inflammation spontaneous, or arising from injury, its healthy progress is liable to be interfered with, and it may take on different characters from what it would exhibit in a healthy constitution; various morbid states of the tissues are liable to occur, as thickening, indurations, &c. Sometimes there exists a general inflammatory disposition in the constitution.

* Even the blood of the drunkard is said to be altered, to become dark, and like venous blood.

The natural condition of the nervous system is evidently altered. What a metamorphosis in the intellectual operations. What a nervous irritability; what a depression of animal power, unless preternaturally excited, is seen in the man who has sacrificed himself to intemperance! Suppose the brain to become affected, suppose delirium to come on, does it not manifest a different character from what it would in a temperate and healthy individual? But I trust I need say no more to prove that almost every thing is wrong in the drunkard's constitution; almost every thing, both in relation to his mind and body, undergoes a spirituous change. He is an altered being, and exists in a state of physical organization, never intended or provided for by his creator. And as his organs have different susceptibilities, and consequently give often a different response to impressions, from what they would in their natural state, the rules of practice which ordinarily guide the physician, not unfrequently deceive him when applied to the modified constitution of the habitual and excessive spirit drinker.

Let us now examine a little more minutely a few of the most obvious morbid effects produced on the human system by the abuse of ardent spirits.

Almost every body knows, that the long continued and immoderate use of distilled spirits, exerts a deleterious influence on the structure and functions of the liver. This fact has been known and alluded to even from remote periods of antiquity. Whether this influ-

ence is exerted through the medium of the mucous membrane of the stomach and duodenum, or more directly on the liver, cannot be very satisfactorily determined.

The physiology of the circulation of the liver, the large quantity of blood necessarily passing through it, and the importance of its function to digestion, plainly indicate to us its high utility in the economy, and the close relation it bears to the other functions of life, and consequently that any considerable derangement of it must communicate serious effects throughout the economy. Its circulation, too, has such an immediate connexion with that of the other abdominal viscera, that if disease obstructs it, the effect will be immediately communicated through the whole. Thus the spleen and pancreas, though both may be primarily affected, no doubt often become affected in consequence of obstructed circulation in the portal system. Thus we sometimes find each of these organs affected in the intemperate, the spleen enlarged, and the pancreas indurated, though their affections, from our imperfect knowledge of their physiology, are not manifested to us during life like those of the hepatic system.

The habit of intemperance having been persisted in for a period which may be longer or shorter according to varying circumstances, some obvious derangement begins to show itself in the function of the liver, and we denominate it a functional disease; still there is unquestionably an incipient alteration taking place in its material organization, though perhaps too minute in this

early stage to be appreciated or detected by the anatomist could it now be subjected to his examination. At this period, too, it may for the most part be restored to its healthy condition by an abstinence from the cause which disordered it. But if the cause is now persisted in, its structure and function become more and more seriously affected, till at length its natural organization is so changed, that no means within our knowledge are capable of restoring it to a healthy condition. Of the intimate nature of the morbid action affecting the structure, we are, as in other analogous cases, ignorant. It must of course vary in different structural affections. At any rate the action is altered and unnatural. Changes may commence in it in consequence of congestion and sub-inflammation often ending in the effusion of some new matter into its parenchymatous substance.

Sometimes the liver, under the influence of the habit of which we are speaking, enlarges, and may even increase so as to fill both hypochondriac regions, thus mechanically embarrassing highly important functions to life, as the respiration and circulation. Experiments have shown that the livers of animals may be swelled up to a great size, and indurations induced in other viscera, by mixing spirit with their food. But the livers of drunkards are by no means always enlarged, or at any rate enlarged in any remarkable degree, even when their structure is in a morbid condition. In some few instances the organ has been found even contracted in size. It usually becomes more solid and firm, probably from

effusions into its interstices, and degenerates into the condition which we denominate scirrhous. In this state it exhibits a yellow, brownish-yellow, or an ash colour, often containing tubercles of various sizes, some very minute, diffused generally throughout its substance, frequently giving to its surface an irregular appearance. The vessels are here commonly diminished in their diameter, opposing of course the free passage of blood through the organ, and consequently through the other viscera subservient to the function of digestion, and the gall bladder is contracted and often empty. This condition of things is very often witnessed in the livers of the intemperate; but it is by no means the only one; various other morbid states are common, but we have not space for their consideration. Hepatic affections arising out of the abuse of distilled spirits are no doubt influenced in degree and kind by incidental circumstances, as climate, constitution, &c.

The effects of intemperance, however, are not confined to the liver. All the digestive viscera suffer under its baneful influence, and disorder is extended through the whole economy.

The whole alimentary canal is liable to become affected. The stomach rarely escapes injury in the intemperate. An acrid and unnatural stimulus is applied, day after day, to its delicate and highly irritable mucous membrane, and as we might rationally anticipate, its healthy structure and function ultimately become deranged; this is especially manifested by a vitiated state of its secretions. This morbid condition

of the mucous membrane communicates an unnatural irritation to the muscular coat, causing irregularities in its action, and at times even painful spasmodic contractions.

The kind and degree of diseased action in the gastric mucous membrane of the intemperate vary in different cases according to incidental circumstances, not always appreciable by us. At times the direct stimulation of it, so augments its irritability that sub-inflammation, and even unnatural thickening of its tissue ensue. Even acute inflammation is sometimes induced. Dr. Horner, in some observations made on the stomachs of intemperate persons, 'found the mucous coat thickened and dense, without any remarkable contraction of the stomach, yet thrown into numerous, thick, elevated rugæ, and the summits of those rugæ, so reddened by numerous capillary vessels injected with blood, that at the distance of a few feet they appeared, when the distinction of the individual capillaries was lost in the distance, like red streaks.'* The mucous membrane of the small and large intestines is also liable to become affected, and its functions of course embarrassed and deranged. Here the liver has no doubt often considerable concern. If there is a deficiency of bile, or if its quality is morbid, the feces will be altered in their condition, and act as an unnatural irritant to the mucous surface, along which they pass, and may so act as to give rise to sub-inflammation or unnatural con-

* Horner on Mucous Membrane—American Journal of the Medical Sciences, No. 1. p. 27.

gestion here. Obstruction in the portal system, too, will of course impede the passage of blood through the intestines as well as the other digestive organs, and may occasion congestions, &c. The mucous membrane of the lower portion of the rectum, we know often becomes highly irritable, congested or even inflamed from the causes alluded to, giving rise to that troublesome affection denominated piles. The muscular coat of the intestinal tube, either from consent with the mucous membrane, or from some other influence, acting perhaps through the medium of the nervous system, often takes an irregular and unnatural action, even at times amounting to spasms, causing also diarrhœas. Sometimes it is affected with unnatural torpor, no doubt associated with diminished irritability of the mucous membrane.

Sometimes the coats of the stomach degenerate very insidiously into a scirrhous state, becoming thickened, unnaturally hard and altered in their structure. This condition of the stomach is in some instances quite extensive, but is more commonly limited to particular portions of it, especially to the pyloric region which is abundantly supplied with nerves and blood-vessels. The symptoms attending this affection are very distressing, and little relief can be afforded to them by our art. Dr. Baillie seems to think that intemperance occasions this morbid condition of the stomach only in those who labor under a predisposition to it. But certainly this predisposition cannot be proved to have existed in every case occuring in connexion with intemperance.

The mucous membranes in other situations frequently become affected, especially such as are continuous with the gastro-intestinal. Thus the tracheo-bronchial, and that lining the cavities of the head are frequently implicated in the affections of the intemperate; hence arise catarrhal and pulmonary affections. But let us, before going farther into the consideration of the effects of alcohol on the living structure, briefly note a few of the most prominent consequences arising out of the altered condition of the tissues of the digestive apparatus of which we have just spoken.

Intemperance soon induces symptoms of indigestion, especially if there is an original or acquired weakness of the organs subservient to the function of digestion, which are more or less permanent in different cases. It is no doubt one of the most prolific sources of dyspepsia among the lower orders of the community.

Many of the symptoms are, though somewhat vaguely, denominated *bilious*, and it is true that the liver has an intimate relation with them; but they are also referrible to the condition of the other digestive organs as well as that of the hepatic system. Acid and acrid fermentations, and eructations are frequent, and the appetite becomes impaired, or almost entirely destroyed. Hunger and thirst may be generally regarded as incompatible sensations, and as intemperance creates a continued morbid thirst, it diminishes the appetite for food. Let a miserable drunkard go all day long with scarcely a mouthful of food, and give him a sixpence at night, and will he buy bread with

it, or spend it for rum? It is almost proverbial that great rum drinkers are little eaters. Thus the intemperate are very apt to be careless about their periodical meals. It is a bad sign when the family meals are daily delayed for a man not driven by business. But let us proceed with the symptoms—digestion becomes very imperfect, there is often a sense of fulness and oppression, or a feeling of languor and even pain about the epigastrium, sometimes attended with cramps. Such feelings almost all libertines are doomed to suffer. The excessive indulgence in venereal pleasures produces somewhat analogous sensations about the epigastrium. They are at first relieved by stimuli, but the relief is only temporary, and even this cannot long be afforded by them, and finally they may even exasperate the distress. The secretions of the mouth usually become altered, disagreeable to the taste, and a thick yellowish fur often coats the tongue, especially near its root; the breath gets offensive, and becomes strongly impregnated with spirituous vapour. There may be obstinate constipation, or excessive, debilitating diarrhœa, with an unnatural condition of the alvine evacuations, often dark coloured and offensive. Sometimes very obstinate chronic diarrhœa comes on, and may often prove fatal; but this is most common in old broken down drunkards, and is for the most part associated with important lesions in one or more of the digestive viscera. In some instances, even of excessive intemperance, the bowels remain for a long time in a very regular condition.

The respiration is apt to become oppressed and laborious, especially after eating, or severe exercise, and undue determinations of blood take place to particular organs, altering and embarrassing their natural functions. There is apt to be oppression, and often pains about the head, depression of spirits and indisposition to mental or muscular exertion. Such symptoms are all highly aggravated in the morning; it is then that the intemperate man feels most sensibly the effects of his pernicious habit. There is dizziness and pain in the head, foulness of the mouth, nausea and loathing of food, and the morning meal is turned from almost with disgust; in fact he seems awakened only to a world of wretchedness. There is such a *gnawing*, such a sickly faintness at his stomach, and such a general depression of all the energies of life as to be hardly supportable, and so he often rises early to flee to his dram for relief.

The tracheo-bronchial mucous membrane, perhaps from continuous sympathy with the gastro-intestinal, or from sympathy with a disordered liver, or from inhalation of the spirituous vapour, or from some other cause which we know nothing about, often gets into a morbidly irritable condition, and so, in the morning especially, a troublesome cough is apt to attend the other distressing symptoms, usually terminating in a vomiting of a greenish bitter matter, or a glairy mucous; vomiting, however, of such matters often occurs without cough, and affords considerable relief. If the cough is very severe and constant, it is ordinarily the

precursor of organic lesion in the lungs; in truth, the act of coughing itself, if continued and severe, may occasion, and keep up an unnatural irritation in these organs, and an increased determination of blood to their substances; at any rate, when acting in combination with the other morbidly irritating causes, pulmonary consumption is not an unfrequent consequence. Thus drunkards are often the subjects of what has been denominated, how properly I shall not undertake to decide, *dyspeptic phthisis.*

I have thus very generally noticed a few of the phenomena, arising, particularly, though perhaps not wholly, out of the condition of the digestive organs caused by intemperance. But all the varied symptoms of dyspepsia are presented to us by different cases, to many of which we shall have occasion to allude under other connexions

The bilious symptoms, if we please so to call them, of intemperance, are associated with a more permanent difficulty in the liver and digestive organs generally, than in ordinary cases. And though in an early stage they may be susceptible of relief, still they demand more permanent and active means. They are likewise more gradually developed, and are less dependent on the influence of season than common bilious complaints. The nervous system, too, is much more severely affected, and the constitution generally, which exhibits much less energy of reaction than usual.

The symptoms described, if the habit which generated them is continued, go on pretty surely increasing,

though more or less rapidly, according to varying circumstances, till fatal organic changes have become established in the digestive or some other important viscera. Then the symptoms take on an alarming character; distressing vomiting often comes on, and a dark colored matter somewhat resembling coffee grounds is ejected from the stomach, connected with inflammation of the mucous tissue of this organ, or with a morbid condition of the liver, or with both. Chronic diarrhæa, and various other distressing symptoms at length come on, indicating to us how fast life is drawing to its close.

Most of the symptoms which have been brought into view, are commonly regarded as originating in a pathological condition of the liver, and it most truly is an organ on which distilled spirits exert a very marked influence. Still we cannot positively demonstrate that it is always primarily affected by such influence, or even whether all the troubles usually referred to it, are actually and immediately owing to its pathological state alone. This organ, more especially within a few years, has been looked upon as a very mutinous member in the human economy. Scarcely a vicious action occurs in it, but is ascribed either directly or indirectly to the liver. It is worth while to recollect that the apparatus of digestion is a compound of several highly important organs, and that the efforts of all are directed by a synergetic action to the accomplishment of one distinct object, which is digestion. Now as each organ of this apparatus is subservient to this end, if the func-

tion of one is obstructed or disordered in any way, the grand result of the whole apparatus must of necessity become affected, and so being compelled to regard especially the collective result of the digestive machinery, it is often not a little difficult to detect the failures in its individual instruments. And thus it is that some of the gastric organs may receive censure when not deserved by them. However, there is such a reciprocal and necessary connexion among them, that they very soon become implicated in each other's affections.

An alteration, as we might naturally imagine, is soon manifested in the tastes and appetites of the intemperate man. The daily application of strong stimulants to the mucous membrane of the mouth and stomach soon begins to blunt its natural irritability. Hence ordinary stimuli lose their accustomed effect; common food and drinks grow insipid. All his aliments to be relished must be highly charged with condiments, the more cayenne pepper, mustard, &c. the better; he seldom makes a wry face, seldom sheds tears, even when swallowing the most heating condiments. This mucous membrane would often seem to partake more of the character of leather than of a delicate and irritable vital tissue. There is often a painful dryness, and parched state of the mucous membrane of the mouth and throat, exciting a constant desire for drink.

Tea and coffee, and such mild drinks soon become insipid to the taste of the intemperate man. His stomach is accustomed to more powerful stimuli, and

he cares little for those meals which are principally made up of these beverages. It has been said to be a bad sign for a woman to begin to lose her relish for tea and coffee.

The inordinate spirit drinker commonly soon shows signs of emaciation; but constitution and other circumstances may delay it to a certain extent. Sometimes, too, though he emaciates so far as regards healthy substance, still he becomes unnaturally swollen and bloated, especially about the face, and at last in his lower extremities, by the accumulation of unhealthy fluids in the cellular tissue. The wasting of the spirit drunkard may be accounted for in several ways: 1st. His appetite usually becomes diminished, hence he takes less than his ordinary quantity of food. 2d. The chylopoietic viscera get more or less deranged, and so the chyle may not only be deficient in quantity, but its natural qualities may be altered, and it consequently be less fitted for nutrition than that prepared by its organs in a healthy condition. 3d. From the morbid condition of the liver, or undue irritation or sub-inflammation which may frequently occur in the gastro-intestinal mucous membrane, or some other cause, the mesenteric glands, as they are denominated, are apt to become affected, tumefied and indurated, and consequently disabled from accomplishing their destined offices, which we imagine in some way subservient to nutrition. Marasmus at any rate is associated with disease in these bodies, when existing to any marked extent, as it must certainly obstruct the free passage of

chyle into the circulatory system. 4th. The extreme vessels become generally deranged in their functions, and the minute instruments of nutrition, or formative vessels, constituting a part of this system, probably partake in this derangement and so do not perform their offices with their usual perfection. Other causes, too, not appreciated by us, may also be operative, all of which combined ultimately cause a general falling away of the cellular substance, and other soft parts of the body. Thus the eyes become sunken and hollow, unless morbid effusions take place about them. The absorption of the adipose matter destroys the plumpness, and general symmetry and beauty of the body. The skin hangs loose and wrinkled, even in early years, and the legs fall away and lose their proportion to the rest of the body, and all the signs of old age soon manifest themselves. Life speeds on apace with the intemperate. There is a wear and tear of the system, fast consuming all its healthful energies, and rapidly advancing youth to the condition of time-worn old age.

The serous membranes by no means escape the morbid condition generated in almost every vital tissue. Their vessels take on an altered action, manifested by a variation in the character and quantity of their exhalations. Thus dropsical effusions, as hydrothorax, and ascites are very common in the last stages of intemperance, and greatly aid the other causes of dissolution. These modifications of action of the serous tissue, however, giving rise to dropsies, are probably

very much more frequently symptomatic of lesions of some of the important viscera, than idiopathic affections. Obstructions of the hepatic system from the intimate connexion of its circulation with that of the other digestive viscera, are a very frequent source of dropsical effusions into the peritoneal cavity. An unhealthy state, too, of the other tissues of the organs of digestion no doubt communicates morbid impressions to the serous structure attached or contiguous to them. But then distilled spirits may exert a more direct action on the serous membranes, modifying in some way their vital actions. Does not intemperance predispose to a certain degree, to inflammatory affections of the serous as well as of many other vital tissues? Are not spirit drinkers a little more liable to pleuritis, peritonitis, &c. than the temperate? My own experience would lead me to answer without hesitation, in the affirmative.

In the intemperate we sometimes meet with a tenderness, indicated by pressure, and a pretty general, though slight soreness over the abdomen, accompanied sometimes by pricking pains, and usually with symptoms of indigestion. Such phenomena may continue, subject to more or less intermission, for years, and are commonly regarded as indicative of dyspepsia; but they are more probably immediately associated with an unnatural irritability, or sub-inflammation of the peritoneal membrane. Sometimes this membrane is found after death, inflamed, thickened, and in some instances tuberculated. Though symptoms of the

character described are by no means confined to the intemperate, still my own observation teaches me that they are most frequently met with among such individuals.

Serous fluids, especially, in an advanced stage of intemperance, are often unnaturally accumulated in the cellular tissue, constituting anasarcous dropsy. This is often connected with great prostration of the living powers, and is associated also with various morbid conditions of the system, especially with organic lesions of important viscera, which so commonly terminate the career of the drunkard. Anasarcous tumefactions are especially witnessed in the lower extremities, as the effused fluids would naturally gravitate in undue proportion towards them. Their living powers are also more feeble in consequence of their remoteness from the centre of the circulatory system. Who has not noticed the livid red, and shining ankles of the drunkard, distended almost to bursting?

The skin almost always manifests more or less disorder in some of its parts, under the influence of intemperance. The condition of the digestive organs has, no doubt, much concern in inducing and keeping up a morbid state of the cutaneous organ; but the use of ardent spirits may likewise influence it more directly through the medium of its capillary circulation. Its diseases, however, must always be aggravated by a bad condition of the digestive organs. There is in truth a close consent between the surface and the viscera, and they exert a reciprocal influence upon each

other. Alterations from a healthy state are most remarkable, and soonest manifested in the face. The skin here is very abundantly furnished with capillary vessels, has a higher degree of vitality, and a more ready sympathy with the viscera of digestion than that which envelopes other parts. Its appearance almost always becomes affected in indigestion; it either becomes unnaturally pale and sallow, or flushed, or spotted with eruptions. In affections of the liver, different portions of the skin are liable to sub-inflammation, and to herpetic eruptions. The face of the intemperate seldom exhibits its natural aspect. Sometimes it manifests a general fiery erysipelatous redness, perhaps inclining to a purplish hue.* The redness, however, is more commonly, in the spirit drinker, more confined to particular portions of it. The nose rarely escapes, it is an unfaithful member to the intemperate man, it will blaze forth his vile habits, let him practice them ever so secretly. It commonly becomes generally or partially red, sometimes enormously enlarged, the nostrils spread wide, and its bridge and tip, and skin in its immediate vicinity, are often very fancifully embossed with carbuncles of various hues and sizes and degrees of brilliancy. At times such eruptions are very general over the whole face. In many spirit drinkers,

* "*Bard.* Why, Sir John, my face does you no harm.

Fal. No, I'll be sworn, I make as good use of it as many a man doth of a death's head, or a *memento mori.* I never see thy face, but I think upon hell-fire, and Dives, that lived in purple; for there he is in his robes, burning, burning."—*Shaks.*

however, especially if they are feeble, of a nervous temperament, and have weak digestive powers, the face is unnaturally pale, emaciated, with perhaps only a few of the characteristic eruptions about the nose, or a little redness at its tip, or even these marks may be absent, and the whole countenance be pale, sallow and emaciated. Some spirit drunkards are noticed always to exhibit a pale face. But this is more common after the habit has been long continued, the constitutional energies broken down, and the structure of some of the important viscera injured.

The vital powers of the skin in general, almost always become weakened, and their phenomena altered. A slight injury will often occasion troublesome and unhealthy ulcerations. Ulcers, too, will at times break out upon it spontaneously, baffling the best skill of the surgeon. They are most frequent and difficult of cure on the lower extremities. But every medical man unfortunately witnesses too many of these to need being reminded of their character. Mortification sometimes occurs in the lower extremities of feeble, broken down and aged drunkards. It often begins in the skin, extends to the deep seated structures, making dreadful havoc with the soft parts, and not unfrequently terminating in death; various circumstances may hasten or retard its progress. The secretions of the skin evidently become changed from their natural and healthy condition, though we know not the exact character of such alteration. It has been said that the perspiration will at times exhale a strong spirituous odour. There

is to be sure always a foul spirituous stench arising from the drunkard, and though it principally comes out of his mouth, still some of it may be exhaled from his skin.

The nervous tissue, as we should naturally expect, does not escape the morbid alterations so generally diffusing themselves throughout our material organization. We cannot, to be sure, detect changes in the nervous, with the same facility as in most other vital structures; yet judging from the pathological influence exerted by ardent spirit upon its functions, we might rationally conclude that its material structure becomes more or less affected by it. In truth all our best skill in anatomy merely enables us to trace out the more prominent alterations in the living structures, while those which are more minute, yet still sufficient to derange or modify vital actions even to a very considerable extent, altogether escape us, hence the terms organic and functional diseases; the former expressing sensible pathological changes, the latter those which the anatomist cannot detect. The term functional disease then must be regarded as serving only to express the imperfection of our senses, or our limited investigation into the minute anatomy of tissues.

In the brain we not unfrequently detect an obvious pathological condition associated with intemperance, but not in its extended nervous chords, though their functions may be apparently very much disordered. The close connexion, however, existing between the brain, and the nerves which appertain to it, render it often difficult to separate their affections from each other.

Sometimes a severe fit of intoxication will occasion phrenitis, and continued intemperance may cause chronic inflammation of the brain and its meninges. Other pathological conditions are also detected in it after death. In some instances it has been found too firm in its consistence, in others preternaturally soft, or oppressed by a superabundance of fluid in its cavities, &c. Such affections may take their origin in the unnatural violence with which the blood is often circulated through the delicate cerebral tissue from over excitement of the circulation, from a sympathetic influence communicated from the digestive viscera to the brain, or from some more direct action of the spirit itself on its structure,* or all these causes may combine their influence in the production of disease in it. But whether the cerebral structure be sensibly altered or not, a change soon becomes evident in those functions which are associated with it. Feeling and intellect become affected, in consequence of material pathological changes induced by intemperance on the brain and viscera. No pathologist of the present day will deny the influence reciprocally exercised by the brain and digestive viscera upon each other, and the injury to the mental powers arising out of their morbid affections. What a variety of colouring do not external objects take from the changing conditions of the viscera? Let

* It is not fully decided whether alcohol is absorbed into the circulation, and thus applied, in a very diluted state, however, directly to the vital tissues. Many facts would seem to show that this may be the case to a certain extent. See Cooke on Nervous Diseases. p. 104. Boston edition.

the poor dyspeptic answer this question. The mind strongly sympathises both with the healthy and morbid states of the digestive organs; and also, though not to the same extent, with those of the other important viscera. Health of the viscera communicates a healthful impression to the brain, giving strength to the intellect, and alacrity and contentment of feeling; but their opposite state shadows the mind with gloom and despondency, and oppresses all its noble powers. Now the digestive organs of the intemperate man are almost always more or less diseased, and the structure of the brain is probably almost always in a greater or less degree changed from its natural state. Thus the victim of intemperance soon begins to manifest a depreciation in those elevated faculties and feelings which exalt man so high above the rest of animate nature. His memory begins to fail, and his ideas to be less clear and distinct. His moral energy diminishes, his mind is incompetent to its usual efforts, he grows timid, irresolute, loses his wonted enterprise and decision of character, and either neglects his affairs, or manages them injudiciously; every thing seems to go wrong about him, he is continually erring in judgement. His temper, too, becomes capricious, he is peevish, fretful and discontented, and trifling causes often excite him to violent fits of passion. Was he ambitious, his high views soon yield to the degrading influence of his habits; he shuns his respectable companions, and seeks society among those equally, or more abandoned than himself. However elevated a

man's station may have been in society, intemperance will soon reconcile him to low company. He sinks in intellect, in feeling, in principle, in conversation, and he must feel his degradation, must feel rebuked in virtuous society, and so will seek his proper level.

And then the condition of the viscera conveys a morbid influence to the brain; gloom fills the mind, and reflects its dismal colouring to every thing without it. This state of mental feeling in its turn reacts on the viscera, aggravating their morbid condition, and thus the evil, as has been elsewhere remarked, is increased in a geometrical ratio, rather than by simple addition, and is also aided by general debility. Thus the intemperate man is very apt to magnify all his complaints, and is ever wearying us with predictions of his own death; under such a state of feeling, he not unfrequently reflects with most bitter remorse on his wicked and ruinous course, but, like one oppressed with a night-mare, has not power to escape the destruction that he sees threatening him. His feelings, mental and bodily, at length become truly distressing, and with an almost irresistible power drive him to his *bane and antidote*, which affords him a short-lived feverish excitement, and a little temporary alleviation of his suffering. But the alleviating power of his antidote is daily diminishing, and its baneful effects augmenting. It is well known that spirituous potations when long persisted in, frequently lose in a great degree their exhilarating effects. The stomach of the drunkard will often get at last into such an extremely irri-

table and morbid state, and the nervous system become so weakened or disordered, that but little spirit can be borne by him, and even its immediate effects are unpleasant. He is now truly wretched, the false friend so long depended on, has deserted him in his hour of greatest need. He now begins to call for other aids to bring him relief; bitters and a variety of medicinal agents are employed; but it is too late for them to benefit him; the unnatural work has been going on too long in his system. His body oppressed with pain, his mind agonized with gloom, or hypochondria, he is sometimes driven to terminate his wretched and wicked career by suicide, unless dropsy, apoplexy, or something else fortunately save him from this dreadful catastrophe.

Intemperance often exerts a sad influence over the moral character of its victims, chilling all those mild and benevolent affections which shed so much happiness over friends and the domestic circle, and which like mercy bless both him that gives and him that takes; or still worse, converting them into the most cruel feelings which disgrace the human heart. Wife, children, friends, are not only neglected, but often maltreated by the drunkard. He abandons his own fireside, where, if at all, contentment should be found, leaves every domestic enjoyment to carouse and riot with the wretched outcasts of society.

Intemperance frequently occasions insanity, more especially if there exists any hereditary or acquired predisposition to it. No doubt a large proportion of

the cases of mental alienation occurring in the United States, are in reality referrible to this cause, though circumstances often render it difficult to trace the connexion. The undue determination of blood so frequently taking place to the head, and the pathological condition of the digestive organs, may both aid in its production. Idiocy often follows the insanity of drunkards. The structure of the drunkard's brain almost always becomes at last so changed that it cannot serve as a healthy medium for the manifestation of mind. In the latter stages of intemperance we commonly witness an almost entire wreck of the intellectual functions.

In some individuals, temporary maniacal symptoms are almost always induced by intoxication. Such persons are in great danger of an ultimate permanent alienation of mind, if they continue their intemperance. The mental diseases thus generated are no doubt often entailed on the posterity of the drunkard. If he has children, but fortunately intemperance weakens the generative function, their bodies are apt to be feeble and their minds base.

There is a species, or modification of insanity almost peculiar to those addicted to the intemperate use of distilled spirits, usually denominated *delirium tremens*.* It will sometimes, however, though not very commonly, follow the too free use of fermented liquors, or even of opium. It is for the most part witnessed in those

* It has been very judiciously suggested by Dr. George Hayward, that Delirium Vigilano would be a more appropriate name for this disease.

of a nervous temperament; but long continued intemperance will give rise to it in almost any constitution. It most usually occurs in the veteran drunkard, but the recently initiated in intemperance, if of feeble and nervous constitutions, and sedentary habits, are also liable to it. It seems to be more readily induced in the confined atmosphere of cities than in the open country. In truth I have seldom met with this disease in the country, though Heaven knows intemperance is not wanting. The poor and badly nourished are more liable to it than the rich.

We recognize the disease by a distressing watchfulness commonly attended by uncontrollable tremors of the limbs and body, and general agitation; by chills also, and unnatural heat after, and profuse and debilitating sweats. The eyes look wild, glaring, unmeaning, and the countenance is pale, unnatural and agitated. Oppression and other signs of disorder commonly exist about the digestive organs. The mind is variously affected in different instances. For the most part it is haunted by frightful and gloomy fancies. The individual also imagines himself from home, about his ordinary avocations, at which he seems to be working most industriously, while the sweat is running from every pore. He is all the while extremely suspicious, and impatient of contradiction.

In delirium tremens, there is not the furious insanity, the wild, red and fiery eye, the burning face, and violence of the circulation, witnessed in phrenitis. It surely differs from phrenitis, and from ordinary mania.

Its aspects, too, are varied and modified by peculiarities of constitution, and by the condition of the vital energies. It is often attended with a good deal of danger, especially in broken down constitutions, and its occurrence always affords the strongest evidence of the habits of its subject. I believe it to be quite as common in such as are continually pouring down spirits, and yet, as their friends say, are never the worse for liquor, as in the downright and disgusting drunkard. The former keep up a continued and pretty regular excitement; the latter have their crises of intemperance, after which the constitution may stand a chance to rest for a little time, and partially recover itself from its unnatural excitation. It is driven, too, to violent reaction against the offending cause.

The proximate cause of this disease has been referred especially to the brain and digestive organs. Dr. Armstrong refers its phenomena to a venous congestion of the brain, and it must be admitted that drunkards are liable to what are denominated, a little vaguely to be sure, venous congestions. But then the Doctor came to this conclusion from the examination of the pathology of the brain in two cases only, and the venous congestion detected might after all have been only the effects of the disease. The truth is, we have at present no certain knowledge of the material change originating the phenomena of this disease. The intemperate man's system exists in an altered state, which we have shown more or less modifies the diseases that affect him. Now it does not seem

very improbable that such a change may be effected in the nervous system in consequence of intemperance, as may predispose to this modification of insanity, and it seems farther not unlikely that its developement may be aided, at least, by a pathological state of the gastric viscera acting on the nervous centre in its altered condition. Sometimes, though rarely, this disease establishes a permanent mental alienation.

Intemperate spirit drinkers suffer much from what we are in the habit of denominating, though not very philosophically, weakness of nerves, or nervous irritability. The hand gets unsteady, and unfit for nice operations. The head, body and limbs are often affected with tremors or shakings, and the disease denominated shaking palsy, is sometimes induced. Such tremors are apt to be particularly troublesome in the morning; certainly till the usual remedy is employed to still them, which is not unfrequently conveyed to the lips with difficulty, and not without spilling some of the *precious* draught. Troublesome palpitations, and other distressing nervous affections are also liable to ensue, especially in individuals of a nervous temperament.

Females possessing more nervous irritability and sensibility than males, are more liable to neuropathic diseases, under the influence of intemperance. Hysterics often come on. Fits of laughing, crying and all sorts of violent passions, are here often exhibited, independent of any moral cause to

excite them. Their true cause often not being suspected, stimulants are advised, and thus they are not only continued, but even aggravated. The morbid condition of the viscera operating on an irritable nervous system, may often excite such affections.

Epilepsy is more frequently produced in men by intemperance, especially if there exists any predisposition to it. Some individuals, even in the early commencement of intemperance, become very liable, during or soon after intoxication, to epileptic fits. Our information of the essential changes in the nervous system leading to epilepsy is extremely imperfect; it cannot be questioned, however, that it is frequently excited by gastric irritation, and preternatural determination of blood to the brain, both of which causes are commonly operating in the intemperate.

Apoplexy is also occasioned by the long continued abuse of spirituous liquors, particularly in individuals physically disposed to it. Apoplectic symptoms of a temporary character not unfrequently occur during a severe fit of intoxication, owing probably to the quantity of blood sent to the head, and the consequent unnatural distention of the cerebral vessels. Congestions and effusions also may occur in the brain, in part perhaps from a weak and altered condition of its vessels, and fatal apoplexy be the result. It is pretty well established, however, that those addicted to the too free use of fer-

mented liquors are the most common subjects of apoplexy. The intemperate are also liable to palsy, which, however, has generally, perhaps in most instances, an intimate connexion with the condition of the brain constituting apoplexy. The exact relation, however, these two affections bear to each other in every instance, is by no means well understood. But beside the affections alluded to, the intemperate are liable to almost all those obscure and varying complaints which ignorance has caused us to generalise under the unmeaning name of *nervous diseases.*

The baneful influence of intemperance manifests itself in the muscles of animal life, through the medium of the nervous system often, and perhaps in some instances the muscular fibre itself may become altered. These muscles, however, must always be more or less implicated in nervous affections, as their functions are so immediately dependent on the nerves. At any rate muscular motion under the control of the will is not so energetic, nor is it performed with the same facility as in temperate and healthy individuals. The step is less firm and graceful, the arm less vigorous. A want of uniformity and correspondence is often witnessed in the action of the muscles of the face, materially changing the expression of the countenance. There is frequently a peculiarly irregular action in the muscles about the mouth. The lips are often half closed, a little tremulous, and perhaps the lower

one partially drawn down on one side, and thus the mouth of the drunkard is apt to have a peculiarly unmeaning expression, not easily described, but very striking when witnessed. I have often noticed the orbicular muscles of the eyes to contract very frequently, strongly and irregularly causing frequent and irregular winking, and a close shutting of the eyelids. I say that I have observed these things, not, however, that they are present in every instance. Accompanying them, when present, the yellow, inflamed and watery eye, the bloated, fiery and blotched face, all combined, give to the countenance a peculiarly unnatural, and any thing rather than an intellectual expression. What a sad change is effected even in the finest and most expressive countenances, by intemperance! Mark the eye of the drunkard, and where is its intelligence? Where the benignity and beauty and variety of expression which once beamed from it? Its natural fire is now quenched, there is no longer *speculation in its gaze.* In short, all the dignity of the human countenance is departed, and its look is almost brutal, a brand of infamy is set upon it. Such marks, with the usual hesitating, stammering speech, will betray the most secret drunkard.

The sleep of the intemperate man is far unlike the soft, still slumbers of health and innocence. Seldom does it come as a comforter; uneasy sensations, and frightful or gloomy images are continually troubling it. Thus he frequently starts, groans,

snores, and cries out frightfully. As his mouth and throat are apt to become dry and parched, and his thirst great, he often dreams of his adored liquors, but alas! he cannot taste them, and so Tantalus like, is he tormented. Nightmare too, often worries and somnambulism endangers the votary of intemperance, and on awaking his misery is but little alleviated. If he goes to bed intoxicated, he lies all night perhaps in a sort of apoplectic state, and dearly, very dearly does he pay for his debauch in the morning. The dry parched tongue, the sickly, distressing feeling at the precordia, the violent throbbing headach, render him sensible for the time being, how very dear he purchases sensual gratification when its price is health.

The urinary organs are also frequently implicated in the effects of intemperance. The kidneys and bladder must be unnaturally excited by the continued secretion of irritating urine. A heat and irritation, and consequent desire to pass urine are often felt almost immediately on taking a draught of spirits; and the mucous membrane of the bladder is sometimes thus brought into a morbidly irritable condition, and the irritating cause being continued may ultimately occasion permanent diseased action in the urinary apparatus. The intemperate, especially as they advance in life, are certainly more frequently affected in these organs than those of temperate habits. And may not the too free use of distilled spirits sometimes give a

disposition to the formation of urinary gravel and calculi? Gout often, and dyspepsia almost always, follows intemperance, and there frequently appears to exist an intimate relation between dyspepsia, gravel and gout. They not unfrequently occur, and sometimes alternate with each other, in the same constitution.

A peculiar disease arising from the use of ardent spirits has been described by Dr. Jackson, in the New England Journal of Medicine and Surgery,* under the name of *arthrodynia a potu*. It has been most frequently met with among females. It is characterized by severe pain in the limbs, especially the feet and hands, sometimes shooting up them suddenly, and in one case the pain 'frequently passed up the back and then forward to the pit of the stomach, taking the course of the diaphragm.' There is also numbness, and after a while some contraction of the fingers and toes, and an inability to use these parts readily, so that at length they become nearly useless. The whole body, except the abdomen, diminishes in size, and the feet and hands are particularly emaciated, and the skin of these parts, and sometimes of other parts, though in a slighter degree, assumes a peculiar appearance. 'This appearance consists in a great smoothness and shining, with a sort of fineness of the skin. The integuments look as if tight and stretched without rugæ or wrinkles;

* No. IV. Vol. XI. p. 351.

somewhat as when the subjacent parts are swollen; but the skin is not discoloured. Yet in this disease there is not any effusion under the skin, and the character, which this assumes, arises from some change in the organ itself.' Digestion is always much disordered, the mind weakened, and sleep prevented by the pain and procured only by opiates.

'In the progress of the disease spasmodic affections often ensue, and both mind and body are liable to be disturbed and agitated by slight causes. The powers of life at length are exhausted and delirium perhaps occurs at last, as a precursor to dissolution.'

This disease is thought to be always fatal, unless the use of spirituous liquors is abandoned before the energies of the digestive organs are greatly impaired.

Several instances of spontaneous combustion taking place in drunkards, have been recorded, but too much mystery and uncertainty envelope them to warrant us in ranking such a termination, in the present world, among the wages of intemperance.

I have thus brought together in as brief a manner as justice to the subject would admit, a few of the diseases of the different organs and tissues, and consequently of their functions, which are liable to arise out of the intemperate use of distilled spirits. But what a host of other maladies, not even alluded to, are occasioned by it! There is

in truth scarcely a human infirmity but may be indirectly excited, or in some manner influenced by this habit. It breaks down, enervates all the natural energy and firmness of the constitution, and consequently renders it susceptible to the influence of almost any disease to which chance may expose it. It has been, and in fact still continues to a certain extent, a vulgar belief, that the free use of wine or distilled spirits tends to render the body insensible, to a certain degree, to the cause of prevailing fevers, and other diseases. But it is contrary, on a general principle, to truth, for whatever tends to weaken or derange the powers of life renders them less capable of successfully opposing the attack of morbid agents, as miasms, &c. Possibly the beastly drunkard, he who is almost always intoxicated, may, as has been stated, be in a degree insensible to prevailing fevers. In truth disease is constantly going on in his system of another kind, caused by a peculiar poison, and forestalling an influence in it incompatible to a certain extent with that of other morbid agents. He seems in truth to be insensible to almost every thing but rum. When fevers, &c. do attack the intemperate, they are usually more severe and fatal.

It might be proper in this place to remark, though our limits will require great brevity, on the influence exercised by wine* on the tissues and

* Though the term wine is applied often to the fermented juice of many of the sub-acid fruits, we shall here limit it to that of the grape only.

organs of the living body. Very many of the diseases which arise from the abuse of distilled spirits are also generated, though often in a somewhat modified form, by excessive indulgence in the use of wine. The stimulating effect of wine in fact, depends on the alcohol contained in it, but this constituent is so modified by combination with other ingredients that its intoxicating effect is less, and less injury results to the constitution from the use of the same quantity, than when taken in its uncombined state. Experiment has shown that a bottle of the dry and strong wines, as Madeira, Sherry and Port, contains nearly a pint of proof brandy. But the intoxicating effect on the system of a bottle of wine would be found generally very much less than that of a pint or even half a pint of brandy, when considerably diluted with water. This difference is explained by Dr. Paris, on the supposition that in wine the alcohol 'is not only more intimately mixed with water, but that it exists in combination with its extractive matter; in consequence of which, it is incapable of exerting its full effects before it becomes altered in its properties, or, in other words, partially *digested*; and this view of the subject,' he says, 'may be fairly urged in explanation of the fact that the intoxicating effects of the same wine are liable to vary, in degree, in the same individual, from the peculiar state of his digestive organs at the time of its potation!'* Many

* Paris on Diet.

of the stronger wines, however, which are sent abroad, have more or less brandy added to them, much of which is *fretted in* by the production of a renewed fermentation, yet some will remain in an uncombined state. When such wine is taken to excess, it will necessarily be much more injurious, and productive of the diseases belonging to intemperance than pure wine. In truth, it will soon produce the same effects on the system as ardent spirits. It is in fact, in part, ardent spirits. Now much of the wine drank in our country is not only adulterated with brandy, but sometimes with other noxious articles, consequently its effects here are no sure criterion by which we can judge of the influence on the constitution of pure wine as drank in the vine growing countries. It is a well known fact that intemperance is by no means a common vice in wine countries, in France, Spain, Portugal, Italy, &c. where the light wines in their pure state are substituted for ardent spirits. Nor are their inhabitants subject to the numerous class of diseases attendant on the employment of distilled liquors. Hence it has been very rationally suggested that the planting of vineyards in our country might exert a very happy influence in the suppression of intemperance. The light wines of course, from containing less alcohol, are least injurious in their effects.

If man lived in his original condition, simple in all his habits, water would be all that he would re-

quire—all that would be suited to such a condition. It is unquestionably the natural beverage, the only natural diluent for man as well as all other animals. But our condition is altered, we have swerved very far from nature's simple rules, and we are speaking of man in this artificial state. Now is there not a necessary adaptation of our habits one to another? And may not man in his altered condition sometimes even require for his health, what in his natural state would not only not be needed, but even be positively injurious. The stomach, even from infancy, being subjected to the influence of various stimulating condiments, and to other influences tending to lessen its natural irritability may sometimes in adult life get to require something a little more stimulating than pure water: a little pure wine taken at proper periods, may then do it no material harm. But then wine is greatly abused; its use is carried often to such excess as ultimately to sap the energies of the constitution, and bring on a train of distressing infirmities. The stronger the wine, the sooner of course will its deleterious influence be manifested in the system. The effects of wine, however, on the vital structures, obviously differ in many respects from those of distilled spirits. The powers of digestion and assimilation are by no means so rapidly injured as in the spirit drinker, and the appetite often remains good for a long time. Thus we frequently find gluttony associated with the free use of wine; and as highly

nutritive food is commonly employed, the body is very apt to suffer from excess of nourishment. High living of this character, may for a little time even elevate the physical energies, and thus encourage the continuance of it; but the powers both of body and mind must ultimately be wasted by such unnatural excitation, and the term of existence abridged. The injurious effects of such habits will be felt sooner or later according as the individual is laborious and active, or sedentary and inactive in his habits. Bon vivants, however, are very apt to be indolent.

The general appearance of the body of the excessive wine drinker is commonly indicative of a plethoric condition, certainly unless a great deal of exercise is taken. The face is ruddy and rotund, the belly increases in size, and an increased quantity of fat is deposited in the cellular tissue. This condition is often connected with weakness of body, and a torpor of the intellectual powers. The breathing is apt to be short and embarrassed under exercise, the head is often oppressed, and various affections, commonly referred to a plethoric state of the system are apt to ensue. Sanguineous apoplexy is more common than in spirit drinkers. The lungs and heart are liable to be oppressed with blood, and shortness of breath, palpitations, and sometimes angina pectoris, in advanced life, will take place. Gout, too, is commonly believed to be more readily brought on by the intemperate

use of wine than of distilled spirits. The plethoric state of the system induced by wine and its associate habits is certainly very favourable to the production of gout, and especially to its development when any predisposition to it exists. Gravel, and affections of the urinary organs are often met with, in apparent connexion with the intemperate use of wine, but probably not more frequently than with that of spirit. Wine does not so readily break down and shatter the nervous energy as distilled spirits. The various and obscure neuro-pathetic affections are not so often witnessed in the wine drinker as in the spirit drunkard, but diseases of the circulatory system are very frequent in the former. There commonly exists in connexion with the free use of wine a strong disposition to acute inflammatory complaints, to pneumonia, acute rheumatism, &c. These are commonly of a more active character, and demand larger depletions than when occurring in the spirit drinker; and there being also more energy of life, they are sooner recovered from, and the system more perfectly restored. The passions are apt to be violent and strong in the wine drinker, and affections of the brain from undue excitement not unfrequently occur.

Finally, however, all the important functions begin to suffer under the continued and unnatural stimulation of wine. The digestive organs become ultimately deranged, and lose the energy which they

had all along exhibited. Inflammation perhaps, in a low degree, or increased insensibility comes on in the gastro-intestinal mucous membrane, extending in some instances to the tracheo-bronchial; hence dyspeptic symptoms, hemorrhages from the mucous membranes, cough, spasms of the stomach and large intestines, diarrhœas, perhaps alternating with obstinate constipation. The symptoms are all aggravated and many produced by a diseased condition of the liver; the skin and tunica conjunctiva become yellow, and hypochondriac and other symptoms of hepatic obstruction are now introduced, and the nervous system at last becomes shattered as in the spirit drunkard. Obstructions occur in the respiration and circulation, from congestion in the lungs, or from some altered condition of the heart or its large vessels, arising out of inflammation or some other cause not understood. Dropsy, especially hydrothorax, apoplexy, or consumption frequently bring up the rear, and then the scene closes.

Though the excessive wine drinker, is apt to be fat and ruddy for a little time, yet the fat will at last be absorbed. The skin then hangs loose about the belly, the legs diminish greatly in size, and the whole body fast emaciates. The condition of the skin becomes altered, often liable to inflammations and eruptions, and analogous symptoms to those produced by ardent spirits finally come on, though a little modified by the different character of the agent.

It now only remains for us to remark on the means which may be deemed best suited to the prevention and cure of the habit of intemperance. In our farther remarks, we shall, as heretofore, refer especially to intemperance in the use of distilled spirits.

In treating of the prevention of intemperance, it will obviously be necessary to connect our observations with a consideration of its causes. These should be laid plainly open to view, else how can they be evaded or repelled? They must be known, the mind must be fixed intensely upon them, or they will not be successfully guarded against. There is no other way to strike at the root of this growing and destructive evil than through the medium of its causes.

Let us inquire if this habit may not sometimes be begun, or a disposition to it acquired, much earlier than the world imagines, even in infancy. I feel convinced that habits are of much earlier growth than is commonly believed. Infancy and childhood are tender and pliable, peculiarly susceptible to the action of external impressions, and thus to the influences of habit. Habits may become fixed, and difficult to eradicate, before the partial parents even suspect their growth; habits, too, which their own imprudence has been daily cherishing. No matter how soon the moral and physical education of a child is commenced. Many a parent may be heard wailing over the evil habits of

his offspring, talking of chance, fate, and destiny, when he himself had been mainly instrumental, either by omission or commission, in their production.

Suffer me to ask in the first place, if the habits of nursing females are always such as tend to the well-being of those they nourish? Are not many in the habit of daily using stimulating liquors, as cordials, &c. while giving suck, perhaps advised to it, especially if feeble, to enable them to bear up under the new drain now established in the system? And do not mothers often in this way insidiously fall into the habit of intemperance? But we are to speak of the effect on the child. The fact is now well known that the milk of a woman is susceptible of an important influence from the diet and medicines which she may take. A child may be purged, acted on by mercury and other medicines, through the medium of its nurse. The change, too, which diet effects in the character of this secretion is strongly shown in some of our domestic animals. It seems hardly to be questioned, then, that the daily employment of alcoholic drinks by nurses may impart to their milk unnaturally stimulating, and otherwise injurious properties, which must necessarily exercise a deleterious influence on, and alter, perhaps, the natural tastes and dispositions of the helpless being who must draw from it his subsistence. If intemperance is carried to great excess, under the circumstances referred to, then very marked and serious conse-

quences to the child will often ensue. The soft, delicate cerebral organ may be so injured by unnatural excitation, that the mind can never become perfectly developed, and a foundation may also be laid for a train of physical infirmities, which would, though very erroneously, be regarded as natural or hereditary predispositions and might terminate early in death, or if not, life, oppressed by bodily and mental ills, would be rendered not only useless, but actually burdensome.

We should esteem it then, our highest, our bounden duty to impress urgently on the minds of mothers the necessity of temperance, if not for their own welfare, at least for the well being of their helpless offspring. A nourishing and easily digestible diet, with mild drinks, will ordinarily fully and perfectly sustain the secretion of milk in a healthy female, and she may be positively assured that it will be much more bland and nutritious, and better suited to preserve and support the health of her child, than if unnaturally increased and altered by the influence of artificial stimuli. A feeble, delicate female may sometimes require some mild fermented liquor, a little pure wine, perhaps, but distilled spirits should never be allowed, except in extraordinary cases, and then only under the direction of a *judicious* physician. Nursing women, too, ought not only to be cautioned against spirits in their vulgar, undisguised form, but likewise under the more *genteel*, and to most females,

more dangerous modifications of cordials, tinctures, &c.

Let us next see if the more direct management of children in early infancy is not, in many instances, I by no means say generally, such as would be likely to cultivate in them a taste for stimulating drinks. It is not uncommon for injudicious nurses to begin, almost immediately after its birth, to drench the child with hot and stimulating infusions. If it cries from overfeeding, from a little pressure of wind, or from almost any accidental cause, the poor little thing must have something *warming* for its stomach, some tincture, or other heating medicine. The amount of the matter is, if the child cries a little more than the nurse imagines indicative of health, or does not nurse so much as she thinks proper, the stomach, highly sensible, delicate and tender, must be unnaturally acted upon by stimulants, and he stands no small chance of being intoxicated. How frequently too are not such unnatural means employed to arouse the palled appetite? And are not cathartics, whose menstruum is rum, in very common use, even in early infancy? And then there is a mixture of rum and opium, with a few additional stimulating articles, commonly called paragoric, which finds a place in almost every family, and on which some children are very liberally fed, and thus not only many infirmities are generated, but the very ailments for whose relief it is administered are more confirmed;

the necessity for it grows out of its use. Its abuse in some instances, from respect to human nature I will not say they are frequent, is truly abominable. If the child has fed too freely, and signs of uneasiness and pain of the stomach or bowels follow, this mixture is hastily produced. If he does not pass nearly all his existence in sleep, if he shows a propensity to muscular motion, or to make a little noise, as is quite natural for animate things, especially if at an unseasonable hour, he must be stupified. If the mother is desirous of going abroad, paragoric will still her infant till her return. Or if there is a nurse, and she gets wearied out in attendance, this mixture will remove the obstacles to her own rest. That this medicine has virtues, like other poisons, when judiciously employed, every physician well knows, I am merely speaking of its abuse. Parents ought to know that it is a compound principally of rum and opium, and that its excessive use will sap both the moral and physical powers of their offspring. All the injurious consequences of the spirit and opium must result from its abuse, and by weakening the digestive powers it may even establish a sort of factitious necessity for such stimulants in after life.

The food too of children is apt to be too stimulating, too highly seasoned with condiments. What then let me ask would be the probable consequence of such management at a period when impressions are apt to be strong and lasting, the system pliable and peculiarly susceptible to the influence of habit? The answer is

obvious. The natural irritability of the system, especially of the mucous membrane of the mouth and stomach, would become blunted or otherwise injured by excess of excitation. Ordinary, and simple food and drink would become insipid and tasteless, nor would the stomach be sufficiently aroused by it to accomplish with ease its natural functions. It would be weakened by over stimulation, and the whole system would partake in the effect. Disorders of digestion, weakness, nervous complaints, &c. would necessarily ensue, and would seem to require more stimulants, bitters, &c. and so the child would grow up under the continued influence of artificial excitements, a seeming necessity for which would grow with their use. There does often appear to exist something like a reciprocal connexion among the various stimuli, one frequently leading on to a desire for others. Thus food if not well heated by condiments, becomes insipid to the drunkard. And I conceive that an individual accustomed to highly seasoned food, would be in more danger of acquiring a relish for stimulating drinks, than one used to more plain and simple diet. Stimuli like the vices are apt to be gregarious. But many children, independent of their food, take quite spirit enough under the disguise of medicines to cultivate in them a taste for it.

Some parents get into the gross and obviously baneful practice of actually treating their children with stimulating draughts. The drainings of the wine glass, or still worse, of the spirit glass, are given to the child,

or the sugar imbued with spirit, till he learns to love, and cries for such articles. This practice of feeding children with rum, is sometimes, among the lower classes of society, carried to a most shocking and ruinous extent. Now how often do we not hear parents who have been thus insidiously enticing their children on to vice, exclaim bitterly against destiny, evil stars, wicked dispositions, &c. Fate must after all take the blame for our neglect or misdeeds. If we can but shake the cause of evil from our own shoulders, no matter where it falls. An injudicious, foolish parent, suffers his child to lie stupid in bed half the forenoon, and laments and wonders, nay even complains that he has grown up a worthless sluggard. Another, in place of the mild and simple diet and drinks which are alone required to develop all our powers in their fullest perfection, is daily feeding a child from his own glass, or suffering a stupid nurse to drench him with all manner of heating and stimulating things, and then forsooth cannot divine how he acquired the taste which he displays for them ;—what caused him to become intemperate !

Now mothers, and nurses particularly, ought to be instructed by our profession in such management of children in early life as shall be best suited to promote their present and future health and welfare. We should teach them that simple food and drink best conduce to the development of their physical and moral energies, that stimulants, except in disease, are not only of no use, but positively injurious, if not imme-

diately, at least in their ultimate tendency; and that the apparent necessity for their employment, for the most part, grows only out of their unnecessary use.

The habit, too, not uncommonly originates from misfortune in business, poverty, domestic unhappiness, disappointed ambition, and the various other miseries and afflictions so frequently associated with humanity. These operating on minds naturally sensitive and despondent, or deficient in moral firmness, weigh too heavily for their power of reaction, causing such a painful depression, such a desolation of feeling as to drive them to almost any means which can afford even partial or temporary alleviation to their mental anguish. They begin to take spirits with the same intentions that a person laboring under a painful and incurable disease would take opium, to blunt their nervous sensibilities, and produce a partial suspension of the power to feel. But when the habit is once begun, it is maintained by different motives from those which originated it. Under such circumstances what shall be done to save from the destruction of intemperance? The most effectual way, as every one will admit, to enable us to rise above the ills of life, and effectually to resist those motives which impel to evil habits, is to strengthen, especially by early education, the moral and physical constitution, which are often closely related to each other, and to cultivate a strong feeling of religious and moral obligation. But this must be the work of time, and misfortunes come suddenly and upon all characters. Other means must be employed, other motives made

use of to preserve from the danger which is threatening. The mind should be diverted from its own sufferings by varying old associations, by new scenes, amusements, &c. It should be well considered too that this remedy is but temporary in the effects for which it is at first employed. That it cannot long shroud the intensity of mental suffering, in a little time the health will inevitably begin to depreciate, and a state of the digestive viscera and brain will be induced adding ten fold to the original suffering. The pleasing maze thrown over the troubled feelings, and the bright fancies which may temporarily glow forth under the morbidly exhilarating influence of intemperance, finally cease to be produced, and the unnatural stimulation serves but to aggravate the misery. Nothing then is gained by such a course ; but health, reputation, usefulness, nay every thing which gives value to existence are lost. The sensualist must be miserable ; his doom is fixed ; sooner or later his tribulation will come.

It is of the highest importance, too, that the numerous causes continually operating either by direct or indirect influences to give occasion to the habit of drinking should be known and shunned. Habit models our characters. It is but the repetition of single acts, the facility of whose performance increases in the ratio of their frequency. Hence evil habits are progressive, and the consequences of a single error on our moral habits

cannot be foreseen. If we yield once to a sensual indulgence, a precedent, a sanction as it were, is formed to yield again when circumstances bring temptation in our way, and thus it is that the venial beginning of evil habits, the yielding to a single seduction however slight, may prepare the heart for the most disgusting vices. Once within the threshold of sin, our descent is easy, and hardly aware of our progression, we soon find ourselves in its most frightful and gloomy depths. In regard to our sensual impressions the influence of habit is truly astonishing, especially in relation to our food and drink. Use may render many disagreeable and indigestible articles of diet both pleasant and digestible. It even causes us to crave the most nauseous poisons. Who would believe, independent of experience, that articles so unpleasant and disgusting to the uncorrupted taste as opium and tobacco, should be so sought after and become so necessary to the immediate comfort of many individuals as they now are! Who would think that the taste and system could be so depraved by habit as to crave the most virulent poisons! Yet corrosive sublimate has been habitually taken in doses exceeding a drachm. It is habit that renders alcohol so grateful, and seemingly so necessary to us. It is a poison, but a slow one.

From what has been remarked it is evident how necessary it is to avoid the early incitements to intemperance, to shun its first beginnings, to lay

down positive rules of abstemiousness, and if we detect a growing inclination to it, at once to arm ourselves with all our resolution to oppose it. Men seldom become thieves, or murderers, or drunkards at once; they would at first shudder even at the contemplation of such vices; they arrive at them only by degrees under the progressive influence of habit. To drink a glass of rum, or to tell a lie may be no very dreadful crimes, viewed abstractedly; thus regarded, evil may sometimes be productive of good. A lie may benefit ourselves or screen a friend; a glass of rum may afford a temporary cheerfulness of feeling, or we may please a friend by drinking with him. But then such partial benefits should weigh nothing in comparison with the hazard attendant on the breach of important moral rules. Surely to be most easily and safely virtuous, we ought to be so wholly.

In observing human society we cannot but remark an obvious difference in individuals in regard to facility of acquiring habits. Some appear to be constitutionally firm and unbending, rarely yielding to temptations held out to them by their associates. Others are more easy and accommodating in their dispositions, are readily led astray and induced to become participators in the habits of those among whom they mix. They are the creatures of accident, good or bad, according as circumstances influence them. They are sanguine, often of lively quick parts, highly sensible to the pleasures of ex-

istence, and consequently apt to become devotedly attached to them. They are beings of the day, enjoying life as it goes without regard to consequences, living only for those things which bring pleasures in their train. As they possess lightness of heart, often sprightly wit, perhaps sing a good song, or tell a good story, or have some buffoon pleasantry about them, their company is much sought for, and they soon get the name of boon companions, or *clever fellows* in the Yankee acceptation of the term.

Such characters are always in great hazard of falling into the habit of intemperance. Stimulants often elevate still higher their spirits, and for the time being exert a grateful action on the system; and if their digestive powers are strong and their constitutions vigorous, they bear up for a time against their pernicious habits, and hence their danger becomes increased. It is ever hard persuading people, especially of this volatile temperament, to look far ahead for evil. But the evil day will come, let the constitution be firm as it may. Acute rheumatisms or other active inflammations will begin to occur, though not at first perhaps referred to their true cause; and not till it is too late for reformation, are their evil habits seriously reflected on; not perhaps till their moral and physical energies have become enervated and diseased. Convivial feelings laid the first foundation of the habit, but different motives came at length to aid

in its continuance. Such individuals ought to be particularly watchful over their habits, and especially careful in their choice of associates.

A disposition to intemperance has been supposed to be hereditary, and this may in some instances be true. We know children often resemble their parents in their physical structure, diseases, tastes and indiosyncracies. Some individuals certainly appear to have almost a natural inclination for stimulating liquors, and run with astonishing facility into habits of intemperance. Such individuals for the most part readily acquire other kindred habits, as *chewing* and *snuffing*. Much may here no doubt be referred to the difference of effects of such stimulants, and to difference of temperament, as well as to incidental circumstances not appreciable by us, which may have operated even in early infancy. No doubt tastes and dispositions are frequently acquired in infancy and childhood, which are afterwards regarded as innate. I should on a general principle be more inclined to believe that the child of intemperate parents would be tainted by example than hereditary predisposition. But making all due allowances, there may be instances where such a disposition is inherited.

A fruitful source of intemperance, and one frequently alluded to, is the great number of clubs, or whatever else we may please to call them, always existent in civilized communities, and into a great proportion of which spirituous liquors are common-

ly introduced. And it is in the whist club, the singing club, or even in some one whose purpose is more laudable, that the first foundation of intemperance is frequently laid. The strong propensity to imitation engrafted for a wise purpose in our nature, impels us soon to partake in the habits of those among whom we frequently mingle in social intercourse. A man is never safe who has connexion with a society where the bottle has free circulation.

But beside those mentioned there are numerous other occasions for enticing the thoughtless multitude to get drunk. In many of our villages it is customary for the successful competitor for military or political office to distribute rum among his constituents. What a scene of drunkenness, blasphemy and disorder, not unfrequently ensues on the choice of a representative, or a petty militia officer! And what purpose do our militia trainings more effectually serve than the promotion of intemperance? Ride through a country village at the breaking up of one of these musters, and no farther answer will be needed to the question. A source too of much intemperance is the frequent practice of drinking healths, especially to favourite political candidates. But such facts are too familiar to every one to require that I should dwell longer upon them.

Idle men, especially if of social feelings, are in great danger of falling into the habit of intemperance. Observation teaches us that the human mind

left unoccupied tends strongly to evil. Man was made for occupation. He will find something to do, good or bad. His moral and physical health both demand regular and interesting pursuits, but any, however trifling, are better than the dangerous exposure consequent on the want of stated employment. With him who has no appointed task, time must lag heavily and wearily on. It becomes his worst enemy, and he will often resort to the most foolish and wicked means to get rid of it. Any thing to kill time. Hence he is likely to find out drinking companions, and all other sorts of companions, whose practices, for want of better, soon fix upon him. It is a trite saying, that 'the devil tempts every body but the idle man, and he tempts the devil.'

Females, especially, are sometimes insidiously seduced into the habit of intemperance by the use of tinctures, stomachic elixirs, &c. Their nerves are weak, their stomachs feel faint, and unpleasantly, perhaps from improper diet and want of exercise, from keeping late hours, or from other causes; or they may be subject to hysterical affections, for all which complaints spirituous tinctures are very likely to be advised. And as they are disguised under the unmeaning and often ill applied name of medicines, conscience is quite at ease. That they are drinking rum, and often in considerable quantity, is a thing far, very far from their thoughts. They are taking *medicines* for their *nervous weaknesses,*

or some other *weaknesses*, taking them, very likely, under the direction of their physician; and surely there can be no danger in following advice from such a source! Their physician! the guardian of their health and life, would certainly never advise to that which could endanger the safety of either! But they may learn their sad and fatal error when it is too late to correct it. In a little while they begin to perceive the necessity of increasing their pernicious medicines to gain the desired effects; the apparent demand for them, too, is progressively increasing, till they get to take daily, considerable quantities of distilled spirits in this form. At length, however, light breaks in upon them, and the mournful truth is manifested to themselves and friends. The dreadful habit of intemperance has taken such deep root that laying aside all disguise they now crave alcohol in its most vulgar forms. They have been so surely and insidiously beguiled into its use, that the ordinary energy of human nature cannot oppose the unnatural appetite. All other enjoyments are sacrificed to it. The society and love of husband and children, of kindred and friends, every thing, even virtue itself, yields before the force of this one consuming and enthralling desire. I by no means intend to assert that such medicines as have been alluded to, are never required in disease; it is their abuse of which I have been speaking. They ought to be employed only occasionally, and then as medicines to effect some

definite intentions. It should always, too, be borne in mind that though cordials and medicinal tinctures may and often do excite a healthful and pleasant feeling, while their influence lasts, yet such relief must often be paid for, dearly paid for, by the sacrifice of future welfare. That the habit of intemperance may be acquired through such means is no creation of a licensed fancy brought forward to produce effect, but a reality which observation teaches.

Now ought not our profession, whose motives should be those of benevolence, and whose business it is to save, not destroy; ought not we, I ask, to be particularly wary, particularly guarded in bringing temptations in the way of weak and erring mortals, trusting to us for guidance, that may ever so remotely endanger their well-being and happiness. Could we but advance our view a little into futurity and witness the distressing consequences that in some instances are to ensue from the hazardous practice I am alluding to, there would be little danger of our advising to it. Imagine the wife and mother, young perhaps and interesting, the pride of her family, and delight of the circle in which she moves. In a little time after having commenced such a career, perhaps with the most innocent motives, and through the influence of those to whom she confidently trusted for advice, fancy her changed condition. A mind decayed, a body diseased and foul to look on, a shame and

curse to her family, and having at length forfeited every thing that gives value to life, her usefulness and respectability in society, the esteem of friends and kindred, she remains a mournful beacon to warn others of the danger of her course. And how small and apparently harmless are the beginnings of such mournful consequences! How little are the sparks which often kindle up the desolating fire of intemperance! And with what caution ought we not to guard against them?

I have thus, rather ungallantly to be sure, alluded to females, not believing, however, that the habit is even so common among them as in our own sex, but because when it does occur it forms a more shocking picture, and because they are more liable to be beguiled into it in the manner I am considering. Many females would regard it as grossly vulgar to drink a glass of rum and water, but disguise it under the alluring shape of a cordial or stomachic elixir, and conscience is at once quieted. The delicacy of many would be shocked by the offer of pure spirits and water, who would not hesitate an instant to swallow a glass of anise-seed cordial, cinnamon cordial, or *cherry rum*, and what is the mighty difference? Why, the cordial would probably be the stronger. They are deceived by them, dreadfully deceived by them; they are drinking rum, almost undiluted rum. The devil is said, when he wishes to allure men to destruction to disguise himself under some pleasing shape,

always taking special care that the cloven foot be kept out of view. And it is only when he has beguiled us on so far, so ensnared us in his toils that we cannot escape him, so gradually familiarised himself to us that we can contemplate his frightful aspect without alarm, that he ventures to unmask all his ugliness to our view. But is he not the devil still, much more dangerous in his disguise than in his true shape? Now sugar and spice rum as you will, present it under ever so pleasing a form, it is still rum, only ten fold more dangerous on account of its disguise. But it will not be long before its mask, like that of the devil's, is thrown off, and it can be seen, smelt and tasted even by the most fastidious, by those of the most delicate nerves, without fear or trembling.

A bad and dangerous practice is to drink spirit at stated periods, as at noon, just before dinner, to arouse an appetite perhaps, just before going to bed, &c. The influence of habit will cause it to be craved at such times, its quantity will soon get to be increased, and very likely the intervals between its periods shortened. We are very apt to regard a man with a suspicious eye, when we see him daily, at particular hours, slipping into a drinking house, or going to his own domestic bottle. Especially if he is frequently telling how little he drinks, that he is in no danger and all that, or goes slyly to his bottle, looks over his shoulder before he drinks, or covers his glass with his hand.

Dealers in liquors, as distillers, &c. ought to be especially on their guard, lest by too frequently tasting their liquors, they get to love them too well.

We meet with many individuals who pass in the world for temperate men, or at least only for moderate drinkers, and respectable members of society, and yet are daily sapping the energies of their constitution by *tippling*.* They tell you that they are never *the worse for liquor*, they are often athirst, and consequently drink frequently, but they take so little, that surely no harm can result, just *dash* their water, that it may not be too cold for the stomach. Now suppose them to drink only an average of half a glass of spirits an hour, which these moderate drinkers would certainly think but very little, a pint would be taken into the system in sixteen hours, about the ordinary average of one's waking hours. A pint of rum a day, and yet a moderate drinker! Oh how we are deceived in our estimation of littles! Can we not recollect that every thing great grows out of the multiplication of littles? That time, in its longest duration, is made up of inappreciable moments, and that our loftiest hills are but the accumulation of little masses?

* Almost all drunkards commence their career by moderate drinking; and the example of moderate drinkers is by far the most dangerous. The example of the beastly drunkard every body will avoid; but good fellowship, lightness of heart, &c. are often associated with moderate drinking, and the dread effects of the habit are less strikingly developed to view.

There are numerous classes of men, whose pursuits daily afford occasion to temptations to intemperance. But I will only allude to that class in whose interest and respectability my feelings are most warmly engaged. I refer to our own profession. Public opinion in our country has long affixed the stigma of intemperance to the character of the medical profession; and we are not unfrequently asked why this vice is so prevalent among physicians. That it is a common, by far too common an evil among them, observation has fully satisfied me. Physicians practising in thinly populated districts or villages, whose rides are necessarily extensive, are most exposed, and most frequently fall victims to the habit. Hospitality is ever tempting them with stimulating drinks, and wearied as they must often be with bodily exertion, with professional cares and solicitude, their nature exhausted by long and anxious and painful watchings, it is not to be wondered at that in the frailty of humanity they often yield to the allurement, and swallow the exciting draught. Now day after day, and night after night they may be placed under like circumstances, and subjected to similar temptations, and having once yielded, a sort of license is established for yielding again; and so they go on, necessarily augmenting the quantity of their stimulus, till at length they come to love, and regard as even necessary to their existence, that which they took at first merely as a temporary support under their fatigues, or, which is

even less pardonable, for fear of infringing the rules of hospitality. But oh, how little is the transient gain to our feelings in comparison with the certain loss of health and strength and all the noble powers of our nature which must soon ensue.

But what strength of motive, when properly presented to our minds, have we not to deter us from this disgraceful practice? Surely if temperance is imperatively called for among any class of the community, it is so especially among the professors of the healing art. Is not a sound intellect, which none but the temperate can long maintain, that which should alone warrant the trust of health and life reposed in us by our fellow men? And moreover will not the habit which has rendered stimulants seemingly necessary to our own health be apt to warp our better judgment, and cause us to deal them more liberally among our patients? Ask the face of the physician who is in the practice of stimulating highly his patients, and see if it will not commonly tell you that he also stimulates himself unnaturally? But suppose we use spirits for ourselves without advising their employment to others, still will not our example be likely to exert quite as much influence as our precepts? And then how inconsistent, how opposite to reason to hold ourselves up as the guardians of life and health when we are daily destroying our own; daily consuming, to gratify a factitious appetite, all the moral and physical capabilities which God has so kindly be-

stowed upon us? I can imagine no greater curse among a people than an intemperate physician in principle and practice, especially if fortuitous circumstances have brought him into popular favour and confidence. A pestilence will destroy but the body; but soul and body both, are consumed before his destructive influence.

Now the surest way to preserve ourselves from intemperance, is to start with the fixed principle never to use ardent spirits except as a medicine, and then only when circumstances urgently demand it. If we never swerve from this principle, temptation will soon cease to be held out to us.* Our most arduous duty, and that which requires the most self command consists in opposing the first venial beginnings of bad habits, and which are regarded as vices only so far as they endanger future moral character. We ought to be steadfast, unbending in our virtuous resolves, carefully avoiding the first steps to evil practices. We should never say within ourselves, if I may be allowed to borrow the eloquent language of another—'how inconsiderable and how venial would be this error; but to what crimes may this single error lead! We shall thus be saved from the common temptations, by which

* 'Indefinite resolutions of abstemiousness are apt to yield to *extraordinary* occasions; and *extraordinary* occasions to occur perpetually. Whereas the stricter the rule is, the more tenacious we grow of it, and many a man will abstain rather than break his rule, who would not easily be brought to exercise the same mortification from higher motives. Not to mention, that when our rule is once known, we are provided with an answer to every importunity. *Paley.*

minds less accustomed to a sage foresight, are at first gently led where they consent to go, and afterwards hurried along where it is misery to follow, by a force which they cannot resist, by a force which seemed to them at first the light touch of the gentle hand of a Grace or a Pleasure; but which has expanded progressively at every step, till it has become the grasp of a tyrant's arm.'*

Another very common source of the habit of intemperance among the lower orders of community is the prevalent custom among our farmers, mechanics, masters of vessels, &c. of daily allowing *grog* to those in their employ. Rum is about as cheap as any drink except water; labourers commonly prefer it, think they require and are consequently indulged in its use. Young boys even, when first apprenticed to mechanics, must have their regular hours for drinking rum.

Now nothing is gained to any concerned by such practice, but a great deal is lost. The artificial stimulus only transiently arouses the physical powers, and so soon as the unnatural excitation has subsided, they become feeble and enervated, and the same course must be again and again resorted to, to maintain them at or even near their healthy standard, till finally nearly all power becomes dependent on artificial stimulation. Thus, day after day, the rum drinking labourer is lavishly wasting

* Brown on the Human Mind.

that strength, which he might surely elevate by temperance and activity.

There is no truth in the vulgar opinion that the healthy laborer requires the stimulation of ardent spirits. Those who have fairly made the experiment, and whose judgment consequently is most to be depended upon, almost unanimously tell us that ardent spirits are not only unnecessary to an individual undergoing bodily labor, but generally tend to enfeeble him, and render him less competent to effect his task. We allude of course to such as have not already acquired the habit. It is a well known fact that those skilled in the art of training for athletic feats, running, boxing, &c. do not employ alcohol when they wish to raise the muscular energies to their highest point. They know better, common sense and experience both teach them better. An easily digestible and nourishing diet, with water or some fermented liquor for a drink, are what they chiefly rely upon. The pedestrian, at least our experience has so instructed us, will hold out better, continue his exertion with more ease and alacrity, and feel better at its close, if he abstains from the use of distilled spirits.

What then, it may be asked, shall not the poor laborer have a single glass to cheer his heart under his daily and often painful task? I say no, not one drop. But I by no means assert that a glass or even a gill of ardent spirits a day taken in a diluted state would be likely to occasion any serious harm to a healthy laboring man. But it surely is of no manner of use, and

we are thus often laying the foundation of a habit whose force no power may be able to control. All experience instructs us that it is nearly impossible to confine a laborer to a glass or a gill of spirits a day. To gain the exhilarating and pleasing effects first produced, the quantity must necessarily be augmented; for it is a general law established by thousands of facts, a law which every physician must be familiar with, that our vital functions respond less readily and powerfully to the action of a foreign stimulus in a certain ratio—not capable of being exactly estimated, as it must vary somewhat according to circumstances—of the frequency of its application.*

Those who employ laborers may be assured that it will conduce to their own interest, to that of the laborer himself, and to the benefit of society at large, to abolish the practice we are referring to. Should they even be obliged to give an increase of wages as an inducement to submit to the deprivation, they would still I conceive enhance their own interest. A hundred substitutes might be found for distilled spirits, whose effects would certainly be attended, if with any, with very much less injury. A large proportion of the mild fermented liquors, if not drank to such extent as to disorder the digestive function, for even water may be taken too freely, would be quite harmless.

All those individuals who hold an elevated rank in

* This law, it may be remarked, does not hold true without exceptions. In the latter stages of drunkenness, the system will sometimes become morbidly susceptible to the action of the habitual stimulus.

society, who lead its fashions and give tone to its manners, possessing consequently high influence over their fellow men, ought to exert their best efforts to render the practice of drinking stimulating liquors unfashionable. Let them banish it from their own circles as a vulgar custom, and very many others, at least for the sake of seeming genteel, will soon likewise dispense with it. There are always a class of society who are very ready to assimilate themselves to their superiors, by aping either their virtues or their vices. At any rate, the habit of using distilled spirits should be expelled from good society, and if it must abide any where, let it be only among the lees of humanity. The example of the great will effect very much more than their precepts. Let them cry out against intemperance as loudly as they will, *on the house-tops*, *in the market-places*, and what good purpose will it serve, while they keep their own cellars stored with the choicest of liquors, and seize every occasion to boast of their age and quality; or while they are treating every menial that does a job for them, every coachman or stage-driver that carries them safely and rapidly on, or that they may increase their speed. This latter is a practice which must have struck every traveller.

Our churches, too, ought to look well to the practice. Do none of the members of God's church keep strong drinks on their side-boards? and do they never taste them themselves or tempt their friends on to destruction with them? Do none take out licenses to poison their fellow-creatures with alcohol? Christians

surely ought to set their faces against a practice so mischievous in its consequences.

A diminution of the facility of obtaining ardent spirits, every one must consider of the highest moment in relation to the suppression of intemperance. Extreme poverty is commonly associated with mental and bodily suffering, and if the poor can lessen the sense of their wretched condition, or even produce a pleasing exhilaration, for a few cents, is it likely that they can be prevented? The consequences are ahead, the relief and gratification immediate. Poverty then generates drunkenness, as well as drunkenness poverty. To enhance the price of spirituous liquors, government must be looked to. It is very certain that drunkards will always more or less abound when a few cents will get a man drunk. What temptations, too, are held out in all our cities, towns, and villages, to allure people on to intemperance. A man can hardly turn a corner in any populous place, but a sign indicating the sale of spirituous liquors, with perhaps an invitation to enter and drink, will meet his view. But such nuisances to the health and morals of society have of late been so frequently decried, that I shall content myself with this bare allusion to them.*

* The females in a town of Ohio have formed themselves into a temperance society, and two of the articles in their constitution must unquestionably exercise a good deal of influence in a new country where females are scarce, and males plenty, especially on unmarried gentlemen. They are, 'We will discountenance all addresses in any of the male sex, with a view to matrimony, if they shall be known to drink ardent spirits, either periodically, or on any public occasion.'

'We, as mothers, daughters and sisters, will use our influence to prevent

It now only remains for me briefly to consider the means best suited to cure the habit of intemperance after it has once begun, or become established. Few habits enthrall by so potent a spell the voluntary and reasoning powers of man and so enslave his moral faculties as that of intemperance, and few are there from whose shackles we less frequently become delivered. Such is its force, so violent is the craving, that the intemperate experience for their loved liquor, so heart broken, disconsolate and wretched are they when deprived of it, that few motives are sufficiently strong to cŏme into successful competition with it. Friends, the enjoyment of social intercourse, home, wife, children, nay, even the hopes of God's mercy are often all yielded up for a little rum. Is it not very strange that man, endowed so highly above all other animals, should sacrifice every true blessing of life, all the superiority of his nature, to the gratification of this single taste?—that he should give up so much for so little? How strong an instance does it not afford of the power of habit in the constitution? And how forcibly does it not admonish us to avoid the early temptations to any habit whose ultimate tendency is evil. But the habit of intemperance operates with a double power; for it is not only daily growing in strength by repetition, but by depreciating our moral

the connexion of our friends with a man who shall habitually drink any kind of ardent spirits.' What a sacrifice these ladies are willing to make for the cause of temperance! Another excellent agreement among them is, that they will not take spirit on any occasion, except prescribed by a *temperate* physician.

feelings and energies, it is lessening the motives and power which should oppose it. To afford any probable chance of cure, the habit of intemperance should be attacked early, while the mind is in a condition to feel and reason on its consequences, while it is susceptible to shame, and retains its moral principles. In short, before all its elevated views have become debased under its degrading influence. When the habit has been long established, to break from its bonds requires of its victims a firmness of resolve which few are then capable of exercising. They now say they must drink ; their health suffers, their feelings are dreadful if deprived of their habitual stimulus, it is too late to amend, life depressed in all its powers must yield to its discontinuance. The poison must now be used as an antidote to the poison.

A question naturally occurs when speaking of the cure of intemperance, whether it is better gradually to break in upon the habit, lessening daily the quantity of spirits taken, or to do it at once, not allowing one drop to satisfy the morbid cravings of intemperance ? Now I would answer unhesitatingly, at least if health is not almost entirely destroyed, if age has not too much diminished the energies of life, if, in short, there is a prospect of restoring health and saving life by breaking the habit, let it be done at once. Some substitute may be, probably will be, demanded to enable an individual to endure the total deprivation, and to soothe the consequent agonizing craving, but save him from the bane that is so surely promoting his destruction. The

distress to the individual will probably be more concentrated, but then it will not be so lasting. The temptation, too, is at once removed, and the associations which enslave the mind, sooner, and more effectually destroyed. But where the taste and feelings are gratified daily by a little and a little, the associations which bind to the habit are maintained, the little employed serves but to arouse the morbid longings. Suppose a man was anxious to estrange himself effectually from a beloved mistress, would common sense teach him to do it by degrees, to see her perhaps once a day, then once every other day, and so on that at length he might care nothing about her? or would it not rather direct him to break from her at once, avoid her altogether?

If the tobacco chewer, and snuff taker essay to loosen by degrees the bonds which fix them to their habits, they will rarely effect their purposes. The intricate knot tying us to all bad habits should be forcibly cut asunder. But the case may be said to be different in regard to the use of ardent spirits. The system has been so long accustomed to a particular stimulus, that a partial change has been effected in its healthy laws. Spirits have become, as it were, a requisite exciter of the motions of life, and to abandon them entirely and at once, might occasion dangerous exhaustion. But facts and experience serve to banish from the mind all such unfounded apprehensions. Abundant evidence evinces that distilled spirits may be suddenly and wholly withdrawn, in ordinary cases from the intemperate, not only without endangering

health or life, but with evident improvement to the former, and consequent security to the latter. It is a known fact that in many of our public charitable institutions, habitual and miserable drunkards are often entirely debarred from the use of distilled spirits. The immediate consequence is what we should anticipate; they feel acute and agonizing longings for their wonted stimulus, and distressing exhaustion not unfrequently ensues. But such feelings are rarely long continued, and if there exist no serious lesions of important viscera, the different tissues, under the healing influence of temperance and bodily exertion, recover their natural vital powers, and are enabled again to respond with a healthful energy to the impression of ordinary stimuli. In a few months in truth, after the commencement of such a course, they often arrive at a state of bodily vigour which could by no means have been predicated on their original diseased aspect. I know the sacrifice of feeling must be great, that the depression of mental feeling and bodily powers, and the ardent and painful longing for the accustomed draught may render the individual for a period completely wretched, and consequently that a good deal of moral firmness is demanded to enable one voluntarily to submit to such sacrifice. But then such sufferings are rarely attended with danger, they are daily growing less intense, and will at length cease altogether and health be restored, unless fatal disease has fastened on the system.

I have no doubt but that the habit has been, and may again be gradually destroyed. It has been said

to have been done, by daily dropping a quantity of sealing wax or some other substance into a drunkard's glass till it became filled. Still I feel well assured that the most efficient and easiest way is the one I have already advised.

There are many collateral means to be employed to aid in reclaiming the drunkard and to give him succour, under his painful trials. If he is an idler, some regular employment must be afforded him, such as will keep both mind and body in a continued state of healthy excitement. Change of situation, too, is often very advantageous by presenting new scenes of interest to the mind, and thus withdrawing it from old associations; and consequently lessening the ardent longings for the customary stimulus. The more the mind can be engrossed in interesting pursuits, the better will be the chance of breaking the habit.

All those means should likewise be pursued whose tendency is to arouse the bodily vigor, that the system may be enabled to withstand the effects arising from the sudden deprivation of its accustomed stimulus. Among them are an easily digestible and nourishing diet, free bodily exercise in the open air; for instance farming and gardening, both of which are very healthful and interesting pursuits. Journeying, by land or sea, aids very much in strengthening the health, and is also beneficial by affording change of air and scene, and awaking new interests and associations in the mind. Cold bathing, especially showering, may also be employed in aid of other means, unless the system is very greatly

debilitated. It serves to give energy to the organs of digestion, and tone and vigor to the constitution at large, also to allay the parching thirst, and abate the distressing sensation at the precordia. Mild aperient medicines should likewise be employed if the condition of the bowels requires them, but not in the form of tinctures. These means with the physical, tend also to elevate and restore the intellectual and moral powers, rendering them more adequate to the contest they are maintaining.

It is usually necessary to substitute in the place of distilled spirits some mild drink which shall pleasantly excite the stomach. Enough of this character may be found, though not all equally grateful. Dr. Heberden mentions Bath water not only as being very efficacious in curing the complaints arising from intemperance, if employed 'before the liver and stomach are deeply hurt,' but likewise as very useful in preventing a relapse, 'by enabling the patient to correct the habit of drinking: for,' says he, 'the nature of this water is so friendly in warming and comforting the stomach, as to relieve all that coldness and anxiety which almost irresistibly force a hard drinker to fly to strong liquors for ease under these insufferable sensations.'* Now some of our own mineral waters, exert an analogous effect. Among the best may be ranked the Congress water; this when judiciously employed tends to produce a gentle and pleasant excitement of the stomach, and probably acts through its medium on the hepatic

* Commentaries.

system. It thus commonly alleviates the distressing, sinking faintness about the epigastrium, also abates the dryness of the mouth, and unnatural thirst, and acts as a mild and cooling aperient. A visit to the Congress spring should always be advised to the reforming drunkard, if he has the means to do it, and his lungs are unharmed.

Some gentle bitter infusion may also be required in aid of other means to incite the appetite and sluggish powers of digestion, and to prevent that distressing collapse of the system which is apt to ensue on the sudden loss of an habitual stimulus. If used, however, to excess, injury instead of benefit may result. The too free use of bitters has even been said to give a disposition to apoplexy and palsy. Bitters ought never to be employed in cases of intemperance in any other liquid form than that of watery infusion. When combined with a spirituous menstruum they only serve to aggravate the evil we are endeavoring to relieve. Among other tonics I have sometimes found a happy influence exerted by some of the mineral acids in the debilitated stomachs of the intemperate. If any of the important viscera have become seriously diseased, our regard should of course be particularly directed to their condition, and other management in many points, than that advised, would be called for; but this forms a subject not within my province to consider.

There may, however, be cases as already hinted—there probably are cases, for few general rules exist without some exceptions—in which it might not be

prudent to enjoin a sudden and entire abstinence from the use of spirituous drinks. Delirium tremens is said to have been excited in some instances by a sudden deprivation of the accustomed stimulus. Take an old man, for instance, who for a course of years had been addicted to the intemperate use of distilled spirits, in whom the unnatural actions generated by ardent spirits, had virtually become the accustomed phenomena of life, in whom there remained but little vital energy, and consequently but little power to alter habitual morbid associations, and of accommodation to new circumstances, and modes of living action, whose functions in truth seemed almost dependent on ardent spirits; in such a case I am not prepared to assert that we could without risk, advise a total abstinence from distilled liquors. The irritability of the tissues may have become so blunted as to be unable to respond to milder stimuli. In such old and hardened sinners, however, there is little hope of amendment, do what we will. In truth it is no easy task to persuade an intemperate old man that his health does not require ardent spirits, and I will not dispute but that it may in some rare instances. But observation has certainly instructed me that old men commonly bear the loss of such liquors without the dangerous consequences which are generally apprehended. Health, in fact, is often a good deal improved, if the individual is not very aged, or the constitution too much shattered. Wine, however, and some mild bitter infusion, should commonly be employed as substitutes.

In advanced and obstinate cases of intemperance, opium has been advised as a substitute for spirits, and has sometimes succeeded in enabling the drunkard to abandon wholly or in part his accustomed potations. But as the habit of taking opium will be liable to become confirmed, we can only regard it as a choice between two evils. The habit of using opium does not ordinarily so debase the intellectual and moral powers as that of ardent spirits.* I have known individuals to yield up spirit for opium and become in consequence more respectable and useful members of society. In all cases of intemperance which baffle every other means, I would not hesitate to advise opium as a last resort.

In others beside those in advanced life, the vital tissues may in some instances get into such an altered condition from intemperance, that they cannot be readily excited by ordinary stimuli. They may have become unusually torpid or their natural irritability altered in some other way. Thus sometimes diarrhœa, spasms of the stomach, and dangerous depression of the whole system ensues on the sudden deprivation of alcohol. In such cases a gradual diminution of it may be found necessary, and wine and other fermented liquors should be tried as a substitute. But instances of this character are not very frequent, and in truth when they are so far gone as this, they are not very likely to be restored to health, or their usefulness

* Opium may be, and sometimes is used, to such an extent as to ruin both bodily and mental powers; but not so commonly as ardent spirits.

in the community. There may be cases I grant, where from some idiosyncrasy, natural or acquired, fermented liquors will not suit the stomach, but yet its feeble condition may seem to require some stimulus. Distilled spirits may under such circumstances be necessary, but their use should be very sparing, and continued only while necessity seems to demand them. In such cases a great deal of discrimination and prudence are required on the part of the physician whose advice may be called for. There are no doubt a number of diseased states of the body, though by no means so many as commonly believed, requiring alcohol in some of its modifications, but these I am not called on to discuss.

It will be perceived that I have all along been supposing a desire on the part of the individual to get rid of this debasing habit, and a voluntary submission to means which may be advised to effect it; but this is not commonly the case. Now if a person is determined to persist in the habit, in opposition to every motive that may be set before him, restraint will not probably have much effect, unless it could be permanent, or at least continued for a long period. He will be likely to feel offended under such restraint, regard it as a punishment imposed upon him, and break from it whenever opportunity is afforded. In regard to such persons, I have only to say, if they are determined to kill themselves, why let them do it; the sooner their families and society are rid of them the better. In some instances, though it must not be understood that

I would advise such a practice, rum has actually been put in their way that they might effect their work as speedily as possible. It would seem, however, from the following citation, that this method may sometimes produce a result quite contrary from what is expected or intended. 'A man of Philadelphia, who was afflicted with a drunken wife, put a cask of rum in her way, in the charitable hope that she would drink herself to death. She suspected the scheme, and from a mere principle of contradiction abstained in all time coming, from any sort of indulgence in the bottle.' The habit was here overcome by exciting a new feeling in the mind, stronger than the original one, and incompatible with its indulgence.

Various remedies have been advised to be taken internally with a view to destroy the anxious longings, and to change the morbid physical condition of the drunkard's system. Sulphuric acid taken with bitters, or with the individual's favorite liquors has been stated to eradicate the strong desire felt by the intemperate for ardent spirits.* If this is true, it is very difficult to determine the mode in which it operates to produce such an important result. There is nothing peculiarly nauseous about it, nor are its effects on the system of an unpleasant character. Experience alone must test its utility.

* M Bruhl Cramer, a German physician, administered it successfully with bitters. Dr. W. D. Brinkle has related several cases in the North American Medical and Surgical Journal, tending to establish its utility. He added from one to two drachms to a pint of the patient's favourite liquor, of which a wine glass full was to be taken at intervals till intoxication was produced.

But nauseous and disagreeable articles have had most repute as medicines for intemperance. Not only tartar emetic, tobacco, and other sickening medicines have been conveyed into the drunkard's liquor to excite in him an aversion for it; but things most foul, and offensive to sense, as venomous reptiles, serpents, toads, and even putrid animal substances. I have heard of a man that was cured of intemperance in consequence of a putrid eel being put into his bitter bottle. The active ingredient in Dr. Chambers' medicine, which for a little time had such vulgar repute, was tartarized antimony, and its immediate effects were severe vomiting and distressing nausea. Analysis proved it to consist of antimony, capsicum, sulphur, carbon, cochineal, and gum. Very likely the articles were varied, and more disagreeable ones at times combined with the antimony. Now this medicine did certainly in many intemperate individuals occasion a temporary dislike for the liquor in which it was taken, but that permanent cures were generally effected by it has not been proved. But even to check temporarily the morbid craving for an intoxicating liquor, is no small advantage, it gives a man a chance to reflect on his bad practices, and to confirm himself in good resolutions. Dr. Rush, and other physicians have used antimony in cases of intemperance, combined with the favorite liquor. Some have advised it in nauseating doses merely, others in such quantity as to produce severe vomit-

ing. And good effects have been produced by both methods in some instances. But then large doses have proved dangerous and even fatal in cases of much prostration, and where there existed an inflamed or highly irritable condition of the gastro-intestinal mucous membrane, or serious lesions in some of the viscera, and disposition to chronic diarrhœa. The indiscriminate use of Dr. Chambers' medicine was attended with a good deal of danger, and in some instances with speedily fatal consequences. Such remedies ought only to be employed under the direction of a prudent physician, and adapted by him to individual cases.

We need be at no loss to determine the principle on which the substances alluded to, for the most part act. It is by destroying existent associate feelings, and creating others of an opposite character. To him that has yielded to habits of intemperance, many pleasing associations are awakened by the sight, or the thoughts of his loved liquor. Day after day perhaps it has cheered his depressed feelings, dispelled from his mind the real or imaginary evils which were weighing with a painful pressure upon it, or relieved the distressing bodily sufferings to which he is subjected. Such have repeatedly been its immediate effects, and the cause which produces them will be loved and sought after; even its taste will become delightful. Now could we in place of such tempting associations, connect with the liquor those of a forbidding and

painful character, as sickness, distress, or a disgusting taste, analogy would certainly lead us to hope for some advantage. The principle of association or suggestion extends its actuating influence over the whole animal constitution, and our sensual as well as intellectual tastes and habits are in continued obedience to its control. Under its influence the most lovely objects may excite our disgust, and the most hateful become agreeable. Administer antimony frequently to a child in his favorite food or drink, and see how soon he would get to loath them, even without the medicine. This is a matter of so familiar observation that judicious mothers and nurses ever wish to avoid administering medicines in substances which they are desirous a child should take for nourishment. Many a child has long loathed a favorite sweetmeat because it had been made the vehicle of a nauseous drug. The taste however is so firmly established in the drunkard by previous associations, that new ones can by no means always permanently eradicate it.

Some have thought that intemperance is strictly a physical malady, and that the urgent desire for strong drinks, like fever, bulimia, &c. originates in morbid material changes, which like other diseases are to be restored by internal remedies. Little ignominy consequently should attach to the drunkard, and moral treatment would be but of minor consideration. Now that it becomes a disease no

one doubts, but then it is a disease produced and maintained by voluntary acts, which is a very different thing in my view from a disease with which providence inflicts us. Our laws rightfully recognise a difference between a crime committed under voluntary and involuntary insanity. On the like principle stealing may be regarded as a physical malady, meriting pity rather than blame. The thief longs most ardently for gold; his feelings and condition are truly distressing without it, and thus by a sort of physical necessity arising out of a morbid condition generating this desire, he is impelled to take it, in the same way that the drunkard is driven to swallow rum to satisfy his morbid desire. Now strong motives are and should be held up in the community to prevent those vices which affect its safety and well being. Ignominy and disgrace should ever be associated with intemperance, no matter how much, there is not yet enough to prevent the spreading evil. It is a crime striking deeply into the very root of all peace and good order in society. Its effects are not confined, as some foolishly assert, to the individual; the common expression that a drunkard is an enemy but to himself conveys a falsehood; his evil influence extends to his family, his friends, and indirectly to society at large. It is a crime equally, or perhaps even more injurious in its effects on the community, than many which receive the severest of the law's penalties. There is scarcely a vice but that follows in

the train of intemperance. There may be philosophy in the belief, that evil habits are dependent on material disease, and are frequently to be encountered by medicinal agents, but let it prevail, and peace and good morals must fall before it. Calomel and phlebotomy will never eradicate from the mind of the thief his unlawful desires. And I feel convinced that should the opinion ever prevail that intemperance is a disease like fever, mania, &c., and no more moral turpitude be affixed to it, drunkenness, if possible, will spread itself even to a more alarming extent than at present.

ARTICLE X.

OBSERVATIONS ON ABORTION.

By E. HALE, Jr. M. D.

Fellow of the Society.

The frequency with which abortion occurs among us, and the importance of the consequences which either directly or indirectly result from it, render it a subject of great interest in medical practice. And yet the difficulties which attend the practice seem to have been less fully discussed than in regard to those of most other branches of professional knowledge, of equal importance.

I have no data upon which to form any very accurate opinion in respect to the actual number of abortions, in comparison with the number of births at maturity; but from several circumstances I have the impression that the number is much greater than seems generally to have been supposed. Denman, Burns, and other writers speak of abortion as of

very frequent occurrence; but without any details, or estimate of the degree of frequency. Nor indeed is it easy to obtain the means of forming an exact estimate in regard to it. Although the immediate effects of abortion are oftentimes so serious as to demand the best skill of the physician, to avoid or remedy them, yet the cases are not few in which the severity of the attending symptoms are not so severe as to induce the patient to call upon him. And in those cases which have come under the immediate observation of physicians, the subject does not appear to have excited sufficient attention, to afford the means of any thing like a statistical account of them.

The different portions of the country will doubtless furnish a very different ratio between the number of abortions and mature births. In the large towns there are many more causes to impair the vigor of health, than in the open country; and it is a necessary consequence that so complicated a process as that of utero-gestation is much more liable to be interrupted, and by much slighter occasional causes. The same thing is perhaps true in regard to the different classes of society; though this is not equally clear. It is generally said that the rich and luxurious are much more subject to abortions than poorer and more laborious women. But the labor to which poor women in large towns are subjected, is not generally of that kind which tends to give health and vigor; but quite the con-

trary. And I much question whether on accurate observation it will be found that in this respect they have any exemption from the evils and dangers to which those in more favorable circumstances are exposed.

When abortion has occurred two or three times in the same individual, the tendency to a repetition becomes so strong, that it is by no means uncommon to meet with persons who have aborted a great number of times in rapid succession. I have met with the relation of one case in which the number amounted to twenty-three times. In much more frequent instances we find that the mothers of families have miscarried once or twice in the course of the parturient portion of their lives. By bringing these two classes of cases together by means of such observations as my limited opportunity has enabled me to make, it appears to me that in this town the proportion of abortions to births at the full time is not much, if at all, less than one to four or five. In the smaller towns throughout the country, especially among the agricultural part of the population, this proportion is doubtless much smaller. From inquiries which I have made of some highly respected friends, who are in extensive obstetric practice in different parts of the country, I am induced to believe that among the most healthy parts of the community, it varies from about one to ten to one in fifteen. One gentleman whom I have consulted who has long been in extensive and

successful practice on the Kennebec river, estimates it so low as one to twenty.

In these estimates, I include, under the name of abortion, all expulsions of the fœtus, at whatever period of its fœtal life, previous to the time when it may be supposed capable of sustaining life after its birth; disregarding the subdivisions which some authors have made, as being, for our present purpose, wholly unnecessary. In most respects, the precautions which are to be used to prevent abortion, and the means to be adopted in its treatment, are indicated much more by other circumstances than by reference to the age of the fœtus; and in those cases in which it is necessary that this should be regarded, the supposed lines between the different periods are too little defined to render any classification of value in a practical point of view. When, however, the pregnancy is so far advanced as to give rise to the expectation of preserving the life of the fœtus, a new principle is introduced into the practice: and it matters not that the precise period when it is thus capable of life, is not fully established. It is enough that there is any rational probability of preserving it, to make it our duty to have respect to its preservation in our treatment.

The consequences of abortion, both immediate and remote, are often very serious. Besides the disappointment of hopes which are too natural to be given up with indifference, especially when the disappointment is frequently repeated, the sufferings

of the patient during an abortion are scarcely less, and often they are much greater, than during a labour at the full period. The positive pain is generally much less, although to this remark there are some exceptions. I have seen a patient suffer all the acuteness of severe labour pains for six hours. She was in the third month of pregnancy, and had for several days had some slight symptoms which threatened a miscarriage, when she was suddenly taken with labour pains, which were from the first violently severe, and continued so until at the end of six hours the ovum was expelled. They were perfectly regular, except that they were during the whole period much more frequent than I have ever known pains at a mature period. The interval was so short, that I estimated that the patient endured as many pains as she would have done in an ordinary labour of twenty four hours duration, and all of them of a degree of severity which in ordinary labour only belongs to the last part of it. When the ovum was expelled, the relief was as signal and the cessation of the pains was as abrupt, as when a full grown fœtus is born. There was no hemorrhage previously to the expulsion of the ovum; and only a very moderate lochial discharge afterwards. The patient soon recovered from the immediate effects; but the indirect consequences still remain, in a state of health much impaired, in comparison with its former vigor.

It is very rare, however, that we meet with such

severity of pain as this case produced. But the hemorrhage, the protracted confinement, the weakness, and the suspense between the dread of a miscarriage and the hope of avoiding it, very commonly occasion sufferings which are scarcely more supportable. And not unfrequently we have to add to these evils, the absolute danger to life, and still more often the apprehension of it, arising from the extent and duration of the hemorrhage. The suffering from this cause is in most cases much greater than in ordinary labour. Both physicians and patients, I believe, feel much more anxiety respecting the result, during an abortion, than they often endure at the birth of a full grown child. And yet I do not find from a reference to bills of mortality, that the number of deaths from abortion are more than in an equal proportion to those in a puerperal state.

This statement of course has reference only to those deaths which are the direct and immediate consequence of abortion, these only being included under that name in the bills of mortality. But if we could add to them such as indirectly proceed from the same cause, being produced by diseases to which abortion has given rise, or if the tendency to them existed before, which it has excited to activity. Many a woman has traced the beginning of a course of ill health, which has attended, and probably hastened her to the grave, to an unfortunate miscarriage. And when the tendency to

abortion has become habitual, the constitution is almost always undermined, and the patient sooner or later sinks into a consumption. It is not necessary to go into a consideration of the particular diseases, which are induced by abortion. Whether it be prolapsus uteri, menorhagia, fluor albus, or only a general debility of the constitution, they are such as are equally produced by other causes, and the cause gives no distinctive peculiarity, either to the character of the disease, or to its treatment.

Neither do I propose to discuss in detail, the *causes* to which abortions have been ascribed. They resolve themselves, except in the cases in which abortion is the result of accidental exposure, either into a general debility of the constitution, or into the influence of a habit induced by repeated abortions which were in the first instance accidental. To these classes we ought perhaps to add, a want of readiness in the uterine system of some females, otherwise in good health, in accommodating itself to the new actions which a state of pregnancy demands. The reasoning by which the operation of either of these two last mentioned classes is attempted to be explained, does not appear to be very satisfactory, especially in the extent to which it is sometimes carried; but I am not quite prepared wholly to reject them as occasional causes of abortion.

There is a remark of Denman's on the causes of abortion, which seems to have attracted little attention, but which appears to be entitled to consideration.

'From the examination of many ova, after their expulsion,' he says, 'it has appeared that their longer retention could not have produced any advantage, the fœtus being decayed, or having ceased to grow, long before it was expelled, or the ovum has been in such a state as to have become wholly unfit for the purpose which it was designed to answer; so that if we could believe there was a general intelligence existing in every part of the body, we should say it was concluded in council, that this ovum can never come to perfection, and the sooner it is expelled the better.'* It is scarcely possible, when abortion has taken place in the earlier months of pregnancy, to ascertain whether the fœtus is in a perfect state or not. Indeed we are often unable to discover the fœtus at all, even when the circumstances of the case render it clear that the whole ovum is expelled; insomuch that the opinion has prevailed more or less extensively, and among intelligent men, as well as among the ignorant, in all periods of medical history, that in some cases no fœtus is in fact found. A highly respected medical friend, of accurate observation, and extensive experience, has recently expressed to me the belief that false conceptions are much more frequent than they are generally supposed to be. If this opinion be well founded, it is not easy to account for the formation of an organized body in the uterus, the result of conception, without supposing that the organization of a fœtus was originally begun, although it may have been so imperfect

* Introduction to the Practice of Midwifery—p. 324.

as to prevent its growing to such a size as to be discoverable when the ovum is expelled. This growth may have been checked for a length of time before the expulsion takes place, and there would consequently be a disproportion between the size of the fœtus, and the apparent duration of the pregnancy. Denman remarks that 'in some cases, the ovum, though extinguished, if the expression may be allowed, will remain inoffensive in the uterus to the period of legitimate pregnancy.'

In other cases where the fœtus is so far formed as to be easily discovered and examined, its organization is still so incomplete, as to render it impracticable for us to ascertain by examination whether it were so perfect as to be capable, if the uterus had continued to perform its functions, of arriving at maturity. At a still later period of pregnancy, a malformation of the fœtus, so great as to render it incapable of carrying on life, if born at the full period, is sometimes observable. Such a case has recently come under my observation. The patient had shewn no disposition to abortion in two former pregnancies, and in a subsequent pregnancy passed safely through a great deal of exposure to the ordinary immediate courses of abortion, and threatening symptoms, although in a feeble state of health. In her third pregnancy, she was attacked with symptoms of abortion without any peculiar exposure, which her system resisted successfully, by the aid of remedies, for more than two months. But she was then so much reduced as to make it necessary to

adopt measures for the expulsion of the fœtus, which was accomplished about the end of the seventh month. The fœtus had continued to grow up to this time; but it was so imperfectly formed as to have been wholly incapable of supporting life, if it had been retained to the full period. Such cases it must be confessed are by no means frequent; although it is possible that if the attention of practitioners were more directed to this point, they would not prove to be quite so rare as it may now appear. Many if not most of the cases of monstrous births, when the monstrosity was so great as to be fatal to life, I am inclined to think will be found to have been more or less premature.

It is a matter of general remark, that mothers who have borne many children often terminate their course of childbearing with a miscarriage; and women who are married late in life not unfrequently have one or more abortions, without ever giving birth to a full grown child. The common explanation of these facts is the supposition that the uterine system has in these cases lost so much of its vigor, as to be unable to carry on the process of utero-gestation, which it had begun. To me it seems a more rational explanation, to suppose that the primary effect of the want of power is upon the fœtus itself, arising in part from an imperfect state either of its organization, or of the vital energies imparted to it at the time of conception, and partly from the enfeebled action of the uterus and its associated organs subsequently. We do not indeed

know enough of the process of conception, to be able to examine it minutely in detail. But from what we do know of it, it would seem that a more vigorous state of healthy action should be necessary to commence in perfection such an operation as that of utero-gestation, than, aside from the effect of occasional accidents, would be required to carry it on after it is well begun.

In like manner, it seems to me more satisfactory, in those cases in which abortion takes place in persons of good general constitution, without any apparent cause, to suppose that the fœtus perishes in the first place, either from deficiency of organization or from some other cause, and that the uterus is consequently excited to expel it, than to suppose on the contrary, as the general opinion of writers appears to be, that while the fœtus itself is perfect, both in its organization and its functions, the uterus is incapable of extending itself, and performing the functions peculiar to the state of pregnancy. May not some of the cases of habitual abortion be accounted for in the same manner? I do not mean by this inquiry to suggest a doubt that the tendency to abortion is increased by a frequent repetition. But we surely ought not to ascribe all the cases of this sort to the influence of habit alone, without any inquiry into other causes. Were there no other cause, it would be still more difficult than physicians have actually found it to be, ever to prevent an abortion, when the habit has been com-

menced; and yet cures of this sort, are sometimes, and not very unfrequently, effected.

This explanation will be allowed to rest upon something more than mere hypothesis, if it shall appear that the diseases or infirmities of both the parents are sometimes concerned in producing abortion. This is an inquiry of some delicacy; and even if the supposition be founded in fact, it is not easy to obtain with precision the evidence which should establish it. Yet there are some facts which seem to support it, and which cannot well be otherwise explained. In the case of abortion happening in late marriages, I have an impression that it occurs more frequently where there is a great disproportion between the ages of the parties. On this point, however, I would by no means speak decisively. It would require much more extensive observations than I have had opportunity to make, to authorise a conclusive opinion, and I make the suggestion more for the purpose of turning the attention of others to the question, than as furnishing a valid argument in the case. But there are cases in which, after a female had been subject to abortion, without ever giving birth to a mature fœtus, her husband has been cured of a stricture of the urethra, and then the habit of abortion has ceased, and she has borne several children at the full time. Two such cases have been communicated to me by a much valued friend, whose accuracy of observation cannot be doubted,

in each of which the number of abortions preceding the cure of the stricture, had been as many as five or six. For obvious reasons they cannot be published in detail. But I am permitted to refer to them in this general manner, and if they should be confirmed by further experience, they will show conclusively that the state of health of the male parent has an important bearing upon the fœtal life.

It may seem a matter of small moment whether the primary cause of abortion exist in the fœtus or in the mother; since, whichever shall be regarded as the original affection, it will not be doubted that, in most cases, if not in all, the actions of the uterine system must be more or less imperfect. Although the fœtus may be imperfectly organized, or diseased and enfeebled, so as to be incapable of carrying on its fœtal life, still it must be mainly because the requisite degree of vitality and energy have not been imparted to it by the mother. While in the uterus it seems scarcely exposed to any independent cause of disease. We have supposed, indeed, (perhaps I may say proved) that the state of health of the father sometimes affects the fœtus. But even in this case, it is not easy to conceive of any mode by which such an effect is produced, except by its failing to excite the proper, healthy actions in the organs of the mother. So that in whatever view we regard the subject, the causes of abortion all seem to resolve themselves either directly or remotely, into an imperfection or interruption of the actions by which the fœtus is supported in the uterus.

In a practical point of view, however, this distinction is nevertheless one of some importance. The only reason, except as a mere question of philosophical interest, for inquiring into the causes of abortion at all, is that by avoiding or removing them, the effect may be prevented. If the view we have taken of this subject be correct, we are to have respect not only to the power of the uterus to carry on its own peculiar function of utero-gestation, at the time when abortion is threatened, but also to its power of forming and nourishing a healthy fœtus, from the time of conception; and sometimes also, as we have seen, to the healthy condition of the male parent. It is to be feared that some of the remedies in common use, from being applied with reference to the immediate condition of the uterus, independently of its contents, may have a tendency to impair the vigor of the fœtal health, and thus indirectly promote the evil they are designed to prevent.

How far an investigation of the more remote causes of abortion, to which I have alluded, may be rendered available, for the purposes of prevention, must be determined by further observations. I do not pretend to do more in the present inquiry than to call the attention of the profession to this view of the subject. All that we can now do by way of prevention, before symptoms of abortion have actually commenced, is, in a very general manner, to adopt such a course as shall tend to give health and vigor to the uterine system; and to avoid such occasional exposures as may become the

immediate exciting causes. Unhappily for the efficacy of such measures, there seems to be in most cases where there is a strong predisposition to abortion, a peculiar restlessness and unwillingness to submit to the restrictions and precautions which an effective preventive course absolutely requires. This perhaps in a great measure arises from a want of confidence in the efficacy of the course itself; and it must be owned that it has too often failed, to render some skepticism in regard to it wholly surprising or inexcusable. Indeed it may be questioned whether we have not sometimes prescribed without any very distinct notion of the immediate object to be obtained; and thus perhaps defeated our purpose by our own prescription. Thus absolute and entire rest is almost always enjoined; and yet it deserves consideration whether the debility and consequent irritability, produced by the want of exercise, may not in some cases more than counterbalance the advantage gained by thus imperfectly avoiding the accidents to which it may expose the patient. It is indeed often one of the most difficult points of practice to determine to what extent the abstinence from exercise and motion shall be carried. Rest from absolute fatigue is indispensable in every case. But where the want of exercise produces an irritable state of the system and restlessness, it becomes necessary to compromise our desire to avoid every irregular action and every exposure to accidents, to the dangers growing out of the excessive irritability thus pro-

duced; and it is not always easy to decide between the opposing difficulties of the case, so as to avoid the most pressing.

In some cases of pregnancy, the ordinary sympathetic affections do not occur; and the absence of them in some cases of habitual abortion has been regarded as evidence that a want of readiness in the system to accommodate itself to its new condition, operates as a cause of abortion. To remedy this state of things, it has been proposed to excite by means of medicines, actions similar to those which in common pregnancies arise spontaneously. This can easily be done in regard to the stomach so far as to excite a gentle nausea and vomiting every morning by a small portion of emetic medicine. I have tried this practice; but the result of my experience has not been such as to recommend it. Neither does the reasoning on the subject seem to me to promise much from it. Supposing it to be true, which this practice takes for granted, that the inability or indisposition of the general system to yield to the new actions which have been excited in the uterus, is the real ground of the difficulty, still it does not follow that any action which we have the power to originate, however analogous it may be in appearance to the ordinary sympathetic action of the same part, will have any tendency to render the system more accommodating. Utero-gestation is a process of health, notwithstanding the many morbid feelings it carries along with

it; and it does not appear how that exciting disease by direct means should be favourable to its success. Nor are there wanting examples of perfectly successful pregnancies without any of the usual sympathetic affections. Some women enjoy more health and comfort during pregnancy than at any other period. It seems to me much more rational that we should look for the causes of abortion of this kind in the uterine system itself; and especially that we should investigate its capacity for sustaining and nourishing the fœtus in utero. However good the general health may have been, I think we shall find in most, if not all such cases, that the functions of this system have not been well performed. The state of the catamenia are in general a sufficient index of the condition of these functions, and furnish a ready means of investigating them, notwithstanding the great delicacy of the subject in general.

The result of our inquiries is that the immediate cause of abortion is the inability of the uterine system to nourish and sustain the fœtus, and to carry on its own peculiar actions; and that this inability is produced either by chronic derangement of its functions, by the pressure of disease, or by the sudden effect of some accident. In order to prevent abortion therefore, we must have respect to the condition of this system, not merely at the particular time when abortion is most immediately threatened, but also during the whole period of

pregnancy, and in many cases especially at the time of conception. It is matter of common remark that women who are subject to frequent abortions, seem to be peculiarly exposed to conception; so that a new process of utero-gestation is begun before the system has had time to recover itself from the injuries it received in the interruption of the previous one. Something would probably be gained in such cases, toward the prevention of abortion, if we could delay the commencement of a new pregnancy. Whatever effects are to be attributed to habit, would by this means be weakened, as well as time gained for recovery from the more direct consequences of the previous abortion.

When symptoms of abortion have made their appearance, our precautionary measures must give place to active treatment. Here the first question that arises, is whether the abortion can still be prevented, or whether our only efforts must be to carry the patient safely through it with the greatest safety, and the least possible injury to the constitution. In some cases our first measures may be taken without waiting to decide this question; since the same remedies will be applicable in either alternative. Before we have advanced far, however, and in some instances, from the beginning, the two courses, proper in either case, become widely different. In all such cases it is necessary to any intelligible plan of treatment, that we form

a distinct idea of the immediate object to be attained by it.

The first object should obviously be to save both the mother and the fœtus, by preventing the threatened abortion, so long as there is any reasonable probability of effecting it, without danger to the mother. It might perhaps be inferred from the view we have taken of some of the causes of abortion that we should be little disposed to make efforts to prevent its accomplishment when it is threatened from an apprehension that their success could neither be expected nor desired. Such an inference, however, should by no means be supported. Although it may be true, as we have supposed, that the morbid condition of the fœtus is one of the causes of abortion, there is no pretence that it is the universal or sole cause, and we have no direct means of judging of that condition. In the early months of pregnancy we have no grounds, and at any period none that are conclusive, on which to form an opinion that the fœtus is dead, previous to its expulsion, except the occurrence of putrefaction. More than this, the remedies for the prevention of abortion may operate upon the fœtus as well as upon the uterus itself. As the irritation which gives rise to the symptoms of abortion may as well be supposed to proceed from the morbid condition of the fœtus as of the uterus, so may the remedies which remove it, as well act upon the one system as the other.

But while we are not on the one hand to hasten the expulsion of the fœtus unnecessarily, from a vague notion that it is incapable of life, so on the other hand we ought not to delay the expulsion, to the danger of the mother, from the mere hope of saving it. Our first care should be the safety of the mother, and to this object the desire of preserving the fœtus must be entirely subordinate, whenever there is any discrepancy in the means to be used for the accomplishment of the two objects. The true rule seems to be, to regard the patient with the same considerations that we should in any other disease, taking into view the condition of pregnancy, just so far as it makes a part of the *medical* case, and judging of it as we should of any other class of symptoms, by the importance of its effects on the system. In most cases a prudent practitioner is in more danger of delaying the completion of the abortion too long, than of hastening it too speedily. The hope that it will be accomplished by the spontaneous efforts of the system, and the natural reluctance which such a man feels to interfere without the strictest necessity, unavoidably lead to such a result. At the same time, the strong impression which is universally felt among patients as well as physicians, that a premature labour is more injurious to the constitution than a natural one, added to a desire to avoid the feelings of disappointment which attend a miscarriage, operates strongly to induce both to endeavor to postpone the time of delivery to the latest possible period. May it not be that the injurious effects of abortion are not

unfrequently increased by prolonging the process after all rational hope of preventing it has ceased? That this sometimes happens, I am well satisfied. The following case furnishes a striking example.

A lady early in the fifth month of pregnancy, was attacked, after exposure to great fatigue, to pains intermitting and returning at regular intervals, like true labour pains; but without any discharge. These pains had lasted several hours when I saw her. The pulse was not excited. I gave an opiate and enjoined entire rest; by which she was completely relieved, and in two or three days she went out of town. During the two following weeks, she had several rather copious discharges of water from the vagina, each time after exercise, accompanied by pain and a feeling of peculiar weakness in the back, but without regular pains. For the next three or four weeks, she was more at rest, and was in good health. She was then after a fatiguing ride attacked in the night while asleep, with profuse hemorrhage, without pain. She was bled, and took astringents, and used cold applications with low diet, and confinement to the bed. The hemorrhage was checked for a few days, leaving only a moderate serous discharge, and then returned with violence. The bleeding was repeated, and subsequently a third time. This treatment was continued with little variation for four weeks. The acetate of lead was principally used for an astringent, although others were occasionally tried. Her diet was extremely light, and the rest was absolute. Indeed, she was too much

enfeebled to make any exertion; being a considerable part of the time unable to turn herself in bed, and fainting if lifted into an easy chair. At intervals of four or five days she had a return of the hemorrhage, and in the intermediate time, a constant serous discharge, varying in quantity on different days, but on the whole not so great as to prevent her strength from rallying a little, during the intervals. The motions of the fœtus were sensible during the whole time.

I saw her towards the close of the seventh month, about ten weeks after my first prescription, and four weeks after the first attack of hemorrhage. She was greatly emaciated and her strength every way much reduced. For two or three days her diet had been a little more stimulating than before, though it was still quite light. To such an extent had the desire to prevent miscarriage been carried, that during the four weeks, she had been suffered to have a discharge from the bowels only three times, and then only procured by emollient injections; from an apprehension that the action of the uterus might be excited so as to throw off its contents. I recommended in consultation a mild cathartic, which was given cautiously in small doses, repeated until it produced one full discharge. She was considerably exhausted at the moment, it being the first discharge for a week, but the strength soon rallied and she passed a better than usual night. The discharge from the vagina was not in any degree increased by it. She at the same time took a more nutritious diet, with occasionally a teaspoonful of brandy.

On the following day, although she felt herself more comfortable, from a resumption of some of the functions which had been nearly suspended, yet it was apparent that there was not strength sufficient to continue the performance of them. After a thorough review of all the circumstances of the case; its long continuance; the great debility; the continual draining from the uterus, with the occasional attacks of copious hemorrhage, which were liable still to return at any moment; all together leaving little probability of her going safely to the full time of delivery, and exposing her every moment to immediate death, by a sudden return of the hemorrhage; it was resolved to take measures to bring on premature labor. The membranes were ruptured at three o'clock in the afternoon, by the introduction of a catheter into the os uteri. After waiting an hour for pains which did not come on, twenty grains of powdered ergot were given, diffused in water; in twenty minutes, about fifteen grains more were given, and again after the same interval, the same quantity was repeated. Labor pains then came on. At first they were slight, but they increased regularly, and were accompanied by a constant nausea and frequent vomiting. This made it difficult to sustain the strength by means of cordials, although great care was taken to do it as far as possible. It had been our expectation, that in consequence of the extreme debility, only a small degree of pain, in comparison with other cases would be requisite to complete the labor. In this we were disappointed. The pains had gone on

regularly and with very considerable severity for ten or twelve hours, and yet the os uteri was only very partially dilated. The pains then subsided and almost disappeared. The nausea and vomiting had rendered it impossible for her to take sufficient stimulus, and her strength was extremely exhausted. She was for the first time restless and tossing, her spirits greatly depressed, countenance anxious, the pulse quick. In this situation of things, I gave her hot brandy and water, as freely as the stomach could receive it, until the extreme exhaustion was somewhat relieved, and then gave another portion of ergot of about fifteen grains. By this means the pains were again excited, and advanced with more rapidity than before. In about three hours, they had begun to assume the character of bearing down, and every thing indicated a speedy delivery. Unfortunately at this moment her feelings were agitated by being suddenly informed of the severe illness of a friend, and by some other circumstances connected with it; and the pains again subsided. The exhaustion returned, but was not suffered to proceed so far as it had previously gone; by repeating the ergot the pains were again brought back. They now became quite vigorous, and the labor advanced rapidly, and about two o'clock in the afternoon of the second day, the fœtus was expelled. It was dead, but had not been long so; for it had every appearance of having recently been alive, and motion had been distinctly felt by the mother in the course of the morning. Through all the last part of the labour, the patient had

complained of a very peculiar sensation during the pains, as of something which prevented the uterus from bearing down; and rather drew upwards. The feeling was so peculiar and so strong that she could scarcely be persuaded that such pains could ever accomplish the delivery, and it continued until the fœtus was expelled. It was afterwards explained, by finding that the placenta adhered very firmly by a small portion to the upper part of the uterus, and could not be thrown off by the natural efforts, although the pains were strong. It was necessary to introduce the hand, and gently separate the placenta with the fingers. This operation was attended with some difficulty, inasmuch as from the smallness of the fœtus the parts were not very fully dilated, and was accompanied by a considerable hemorrhage. She was so much exhausted as to make it necessary to continue the stimulants cautiously for several hours after she was put into bed, but by great care she recovered to nearly her previous state of health.

It can hardly be doubted that both the suffering and the danger were in this case greatly increased by prolonging the time of delivery to so late a period, until the strength of the patient was so much exhausted as to leave little more than a desperate chance of recovery. It is true that we have no very certain means, applicable to all cases, of preventing labor from coming on when it is threatened. But it is no less true that we have means which have a

tendency to do this, and which in many cases will effectually do it; and we have always the means of bringing on labor when that is necessary. And if a physician should prescribe in any such case without having a definite object in view, and considering whether his remedies are to promote or to retard labor, his practice is in the highest degree empirical.

It is stated by Burns that 'whenever the muscular contraction is universally established, marked by regular pains, and attempts to distend the cervix and os uteri, nothing can check the process.'* If it be meant, and such appears from these and other similar expressions to be his meaning, that after the occurrence of regular pains there is no longer room for any hope of preventing abortion, his prognosis is much too unfavorable. We surely need not so easily give up the expectation of a more favorable result, or our efforts to procure it. Every practitioner of experience must have seen cases in which regular pains, of some hours continuance, and sometimes even accompanied by a slight discharge, have been arrested, and abortion prevented. So long as there is any reasonable hope of effecting this, without danger to the patient, it must be our object to do it.

Still I believe the danger of trusting to the hope of preventing miscarriage, after it has ceased to

* Observations on Abortion. p. 39. New York edition.

have any sufficient foundation, to be much more common. In the first stages of the attack, if the hemorrhage is not violent, and there are no other threatening symptoms, we need not interfere to hasten the process of expelling the ovum; and if the character of the case is not at once decisive of the result, we may very properly use remedies to retard and prevent that process. But if the symptoms are not very speedily arrested, or if they are of a character to forbid the expectation of arresting them, the sooner the ovum is expelled the better. Every thing that delays this result, adds to the sufferings of the patient, and increases her danger. There are some remedies which may be equally proper in certain cases, whichever result of the case is anticipated, such as bleeding where there is plethora, or danger of inflammation, and at times some of the astringents. But bleeding, I believe, is often practised with little consideration of the purpose it is designed to accomplish; and of the astringents there is some room for selection, whether our object be to allay or to excite uterine contraction. In the use of opiates we must be guided entirely by a consideration of the result aimed at. The contents of the uterus cannot of course be expelled without pain; and therefore the exhibition of opium can only be proper when it is desirable to prevent their expulsion.

It is a common error in practice to make use of means to retard labor, in all cases of threatened

abortion indiscriminately, almost without considering whether there is any reasonable prospect of preventing the miscarriage from actually taking place. By this means the sufferings of the patient are not only greatly prolonged, but there is much less disposition in the system to such labor pains as are necessary to expel the fœtus, and much less ability to bear them. It is highly probable that if the early practice were adopted with more discrimination, we should have less occasion to quicken the action of the uterus in the subsequent stages, by artificial means. In the present practice it is no uncommon occurrence to see the strength of the patient greatly reduced, and her life endangered, by a long continued hemorrhage, without sufficient contraction of the uterus to expel its contents. In such cases the ergot is a most valuable remedy. It is not indeed fully settled that it will excite the uterus to action without first puncturing the membranes. But where the symptoms are urgent, such an objection should have no influence. The membranes are easily ruptured, and if the uterus does not then contract spontaneously, the ergot will easily excite it to action. At the same time it is by no means certain that this operation is an indispensable preliminary to the efficient action of the ergot. Further observation must determine whether it may not be given safely and effectually at any period, whenever it becomes necessary to bring on premature labor.

The practice in the following case was in conformity to the principles here expressed, except that it was less prompt and decisive than I would now recommend. Mrs. A. had not menstruated for twelve weeks. But as she had been for some time in poor health, and had not perceived any of the usual symptoms of pregnancy, she did not suppose herself to be pregnant, and did not use any precaution to guard against a miscarriage. After a morning of unusual exertion, she was seized suddenly while at dinner, with hemorrhage and violent pain. I saw her in two hours after the attack. The hemorrhage was then suspended. The pains were frequent and strong. Before I had opportunity to make an examination, the membranes were ruptured by a very severe pain and the fœtus was expelled. The pains then ceased entirely, she flowed considerably; but the pulse was good, and I was induced to wait a while for a return of the pains, to expel the placenta and membranes, trusting to rest and to a solution of sulphate of copper to moderate the hemorrhage. I however watched her carefully, and after waiting two hours, as the pains did not come on, I gave her ten grains of ergot, and in twenty minutes ten grains more, and in an hour the same quantity again. This effectually arrested the hemorrhage, although the placenta did not come away until the second day after. She suffered very little in the mean time, except from faintness during the first few hours. My only

regret was that I had not given the ergot earlier, so as to have checked the hemorrhage soon enough to prevent this faintness. If this had been done, there would probably have been sufficient vigor in the uterine contractions, to have entirely expelled the placenta at once. As it was however the recovery was unusually rapid and complete.

The result of our observations upon the treatment of abortion is as follows. In every case of threatened abortion, the physician is bound to consider distinctly the question of the probability of being able to prevent a miscarriage. If there are reasonable grounds for such a probability, then prevention must be his first object, taking care, however, not to use such remedies, nor to carry them to such an extent, as in case of the failure of this object shall endanger the subsequent recovery, by the debility that shall be induced, or by their interference with the ordinary functions of health. If on the other hand, there is no reasonable probability of preventing the abortion from taking place, or if the remedies which have been used for that purpose have not been speedily effectual in arresting the threatening symptoms, the sooner the uterus contracts and expels its contents the better. If the symptoms are mild, and the patient's strength is good, he may perhaps wait for the contractions to come on spontaneously, only selecting such remedies for the occasional symptoms that may arise, as shall have the most tendency to excite them, and watch-

ing carefully lest the strength should be insidiously exhausted. But when the symptoms are more urgent he must take effectual means to excite contraction, by the exhibition of ergot, and if necessary, the artificial rupture of the membranes. The most embarrassing cases are those in which the symptoms are speedily arrested, but afterwards return; by which the physician is almost insensibly led on by the hope of preventing a miscarriage, until the patient's strength is greatly reduced. It sometimes happens that after many such relapses, the patient still goes on to the full period. Such a termination, however, is rare, and is not to be looked for, nor in practice sought for, unless the constitution and state of health of the patient are peculiarly favorable.

There is still another case, which though not frequent, occasionally occurs, in which the fœtus is dead, but the uterus does not contract and expel it, neither is there any considerable hemorrhage to call for immediate interference to excite it; and the contents of the uterus come away slowly in a putrid and very offensive state. The sufferings of the patient, although at no time so violent as in ordinary cases of abortion, are more protracted, and the subsequent effects upon the constitution are even more injurious. Perhaps the ergot might in this case excite the uterus to expel its contents, and thus put an end to the offensive and debilitating discharge. I have not tried it in this state of the

patient, nor known of its being used; but it appears to me to be deserving of a trial. I have found benefit from injecting into the vagina a solution of the chlorate of lime. It greatly diminished the offensiveness of the discharge, and seemed to hasten the expulsion of the fœtus.

It was my intention to have considered some legal questions which are connected with the subject of abortion; but my remarks have already been extended beyond the limits I had designed for them, and I must defer the discussion of the other part of the subject.

ARTICLE XI.

MEMOIR

OF

WILLIAM STODDARD WILLIAMS, M. D.

WITH A NOTICE OF

Dr. THOMAS WILLIAMS.

BY STEPHEN W. WILLIAMS, M. D.
Fellow of the Massachusetts Medical Society.

When men of eminence and worth are called to pay the universal debt, it is the duty of surviving friends to endeavor to portray their characters for the benefit of posterity. On this occasion, I presume, the propriety of filial affection will not be questioned, which attempts to delineate the character of a beloved parent, a faithful counsellor, and a skilful physician, and especially to the members of the Massachusetts Medical Society, of which body he was for a great number of years an active member.

The character of Doctor Williams is extensively known, and his loss severely felt by a large circle of friends and acquaintances, who have known his

worth, and experienced the benefits of his skilful practice as a physician. To them his loss is a calamity which will not soon be repaired. To his family it is irreparable. He was born at Deerfield, Massachusetts, October 11th, 1762, and was the son of Doctor Thomas Williams of that place, for many years the most respectable physician and surgeon in the county of Hampshire.* The subject of this memoir had the misfortune to lose his father in early life, but, notwithstanding, his youth was devoted to study, and about the year 1780 he entered Yale College, and continued there a year or two, but never graduated. In the year 1782 or 3 he commenced the study of Physic with Doctor Sergeant of Stockbridge, one of our most eminent Physicians, and for many years a worthy fellow of the Massachusetts Medical Society. Doctor Sergeant was a pupil of Doctor Thomas Williams, and a classmate, and an intimate friend of Doctor Rush of Philadelphia. He continued his pupilage with Doctor Sergeant two years, the customary period, at that time, of professional study. He then commenced practice at Richmond, Berkshire county, where he remained nine months. Soon after he removed to Deerfield, where, after contending with many embarrassments and discouragements he established himself in extensive business, and in honorable practice which he held to the day of his death. He was elected a Fellow of the Massachusetts Medical

* See note at the end of this communication.

Society in 1800, and he always endeavored to be governed by its rules and regulations, and he was a warm admirer, and an active supporter of the laws of the society, as long as he lived. He resigned his fellowship in 1819, on account of the difficulty of attending the meetings. He was appointed Surgeon in the 2d Reg. 2d Brigade, and 4th Division of Massachusetts Militia in 1794, and held his commission with honor sixteen years. He received the Honorary Degree of Doctor of Medicine from Williams College in 1823. He was commissioned Justice of the Peace in 1800, and to shew in what estimation he was held as a jurist, he ever afterwards held that office. He was one of the Trustees of Deerfield Academy from its incorporation in 1797, and from the year 1803 he was Secretary and Treasurer in that Institution. His townsmen appointed him their Clerk for 19 years, and an overseer of the poor, and to several other town offices for many years. At the time of his decease, and for several years previous, he sustained the office of Clerk of the first Congregational Society in his native town.

But it is with his character as a physician that the members of this society are more particularly interested. The above facts will show in what estimation he was held as a man. Will it be invidious in a son to state that he was one of the most attentive applicants to books I have ever known? Many a time have I known him to return home late

in the evening from tiresome professional duties, and pore over his books till after midnight, investigating the cases which occurred during the day. Educated, of course, in the Boerhaavian school, when no other system was taught, he nevertheless threw off the trammels of the humoral pathology, and to the day of his death he kept pace with the great and important improvements in our profession, and gave to his patients all the benefits of modern improvements and discoveries. His medical library was one of the most select and extensive in this part of the country, and he never purchased a professional book which he did not thoroughly study. At a time when the best standard medical works could not be procured in this country, he regularly sent to Europe for them, and continued so to do, till the embargo, and non-intercourse laws interrupted our commerce with foreign countries; since which our facilities for obtaining standard works in this country are much increased. His library was enriched by the Medical Extracts, by the European Medical and Physical Journal, by the writings of Beddoes, Trotter, Russell, Duncan, and many others. In this way he was enabled to store his mind with those ample sources of information which so permanently established him as a physician, and which extended his reputation throughout this section of the country. He was more extensively employed as a counsellor, than any other Physician in the county. He was often called into the states of

Vermont and New Hampshire, into every town in the county of Franklin, and into the counties of Worcester, Hampshire and Berkshire.

But it was his great attention to the sick that endeared him to his patients. Most of the time, leaving some one at home who could attend to his calls, he was enabled to spend many hours, and even days, with his patients in the extremity of their distress, and with his own hand to minister to their wants. If any thing will attach a sick person to a physician, it is assiduous and patient attention to him during his distress. I have known him spend hours by the bedside of his patient, scarcely leaving his chair, except for refreshments, and in several instances I have known this attention continued for days. Great must have been his opportunity for watching the symptoms of disease and for administering relief. All the families in which he has practiced, speak of this trait in his character with affection and love. Hundreds of people here believe, and not without reason, that were it not for this most unparalleled attention, many a husband and wife, many a son and daughter, would now be mouldering in the silent grave.

His practice as an accoucheur was very extensive. Probably no man in this part of the country was ever called to more diversified and difficult labors. Thoroughly acquainted with the use of instruments, he nevertheless, probably, did not use them more frequently than other skilful physicians

would have done in similar cases. He devoted much of his attention to the diseases of infants, and so far as I may be allowed to judge, his practice was certainly very successful.

He was well acquainted with theoretical surgery, and studied with attention all the latest and best surgical writers. Of late, however, he did not perform any of the capital operations in surgery. I have seen him amputate a thigh neatly and successfully, and I have seen him perform several other important surgical operations. His cotemporaries will do him the justice to say, that in dressing an amputated limb, in bandaging, and dressing wounds, few men surpassed him. Often called upon to advise in cases of operations, his opinions have always been received with great deference and respect, and by his advice he has saved many a patient from a tedious and distressing operation. His motto used to be, that 'those were the best surgeons who prevented the necessity of operations.'

It is a subject of deep regret that he has not left a record of more of his important cases. Called upon to advise in more diversified and difficult cases than any other physician in this part of the country, such a record would have been invaluable. One reason for omitting to do this might have been a want of time, and another, which might have operated more powerfully with him, might have been his reluctance to court notoriety by publishing the result of his experience. Whenever honors have

been conferred upon him in his profession, he has ever considered them as 'sounding brass, and tinkling cymbals.' He has, however, left in writing, innumerable prescriptions and recipes which will be of immense value to his successors.

His practice was in accordance with modern improvements, but he was never hasty in adopting innovations. In acute diseases he bled with a bold and liberal hand, though he never could agree with many of his cotemporaries in abstracting blood in the advanced stages of phthisis pulmonalis, and in many chronic complaints. He believed that the modern depleting practice in such cases was annually destroying thousands of victims.

He was firm and unyielding in his opposition to quackery in all its forms, and never has he been known to counsel or advise with a man who was not esteemed to be honorable in his profession, and who was not regularly educated to it. His charges were fair and honorable, and he never varied them for the sake of obtaining business.

He educated a great number of students in the profession of medicine, all of whom proved to be good physicians, and many of them are now highly eminent in the profession. As an evidence of the estimation in which he was held by his professional brethren, it may not be uninteresting to state, that in cases of dangerous sickness he has been employed in the families of almost every physician in this section of the country. His whole life was devoted to his profession with unwea-

ried assiduity, and to the melioration of the condition of his fellow beings.

As a man he was upright and honorable in all his dealings. He despised unmanly concealment, and underhanded meanness in his transactions with his fellow-men. As a husband and a parent, he was most affectionate to his family, and endeared to them by every tender tie. His home was his paradise and his altar, and he never appeared to be happier than in the bosom of his family. He was kind and affectionate to the poor. Probably few men have done more to meliorate their condition. As an evidence that he never distressed them, the fact may be mentioned, that during more than forty-two years, he never sued more than two or three persons, although many of his accounts were open for the greater part of that time. I mention this not as a pattern to imitate, but to shew his benevolence. Physicians in the country are too apt to let their accounts remain unsettled. More than one third of his accounts never were, nor never can be collected, and many of them he never expected to collect at any time. So punctilious was he in keeping credit for his employers, that many of them never pretended to keep any account against him, even in extensive transactions. In his living he was remarkably temperate. Although exposed to all the vicissitudes of the weather in all seasons, yet for nearly forty years he never drank a glass of spirituous liquor, and he rarely drank a glass of wine. As a religious and moral man, as a tender husband, and an affectionate parent,

as an honorable man, and an eminent physician, his family, his townsmen, and the community bewail his loss as one of no ordinary magnitude.

His last sickness though short, was severe. About the middle of December, 1827, he was called to Taunton, in the county of Bristol, to an only and beloved daughter, who was dangerously sick. Before her recovery, other members of the family became seriously unwell, and his attention was required continually, day and night, for more than a month. He had been subject to severe attacks of the sick headach; his stomach became deranged, and the pain in his head was almost incessant. He returned to Deerfield about the 1st of February, and soon after complained of dimness of vision. His sight before had been remarkably good, and although he was nearly sixty-six years of age, he never wore glasses. A slight amaurotic affection attacked his eyes, which increased as long as he lived, and the latter part of his life he was entirely deprived of the pleasure of reading. The affection of his stomach and head increased, and he became emaciated, and his spirits declined. His case is pretty accurately described by Good, under the article climacteric disease. He, however, continued to practice till after the 20th of December, when a violent cold seized upon his lungs, and pneumonia supervened, which was relieved by bleeding, and other remedies. Incessant vomiting attended upon the complaint, which was not relieved till the system was so far shattered as to be beyond the reach of remedies. His nervous system

became affected, attended with slight mental alienation, which continued till the 8th of January, when he expired. Notwithstanding the weather was extremely cold and unpleasant, his remains were followed to the grave on the 11th, by a vast concourse of friends and citizens, and by eighteen physicians from this and the neighboring towns. Such is a brief and very imperfect account of the life and character of Dr. Williams.

NOTE.

Doctor Thomas Williams was the second son of Col. Ephraim Williams, of Stockbridge. He was born at Newton, Mass. April 1st, 1718. I regret that I am not able to obtain more facts in relation to his history. He was educated at Yale College, and studied the profession of medicine with Dr. Wheat, of Boston. He settled at Deerfield, but the precise time at which he came here, I cannot ascertain; but it was probably about the year 1739 or '40.

Dr. Williams was held in high repute, not only as a man of science, but as a physician and surgeon by the government of the country. In the French war which commenced in the year 1743, he was appointed surgeon in the army, in the projected expedition against Canada, which failed. He was afterwards surgeon of the chain of forts which extended from fort Dummer, at Vernon, in Vermont, to fort Massachusetts, at Hoosick, or Adams. These forts were situated one at Vernon, one or two at Bernardston, one at Colrain, one at Heath, one at Rowe, one at Adams, and one at Williamstown. Perilous indeed must it have been to visit these forts in an uncultivated and almost an uninhabited country, exposed to all the ravages and horrors of savage warfare. Little does the present generation know of the hardships and dangers which our fathers suffered in planting and defending the pleasant country we now occupy. Now that roads are established in the best possible manner in which they are capa-

ble of being made across the back bone of New England, or Hoosick mountain, we think it a hardship to pass them. Think then of the difficulties which our fathers had to encounter in passing this mountain in a time of savage war, when there was no road but a horse path, when the country was a forest, and when they were continually exposed to the attacks of the Indians. Dr. Williams must often have been imminently exposed, for he was frequently obliged to visit these forts. It is related of him that a day or two before the capitulation of Fort Massachusetts, at Adams, at the west side, and at the foot of Hoosick mountain, which happened on the 20th of August, 1746, for some reason he obtained permission of the commandant of the garrison to return to Deerfield. At a little distance from the fort, he, with thirteen attendants, passed through a company of hostile Indians, who lay so near the road, on each side of it, that they could almost reach him with their guns; yet he never discovered them, and they let him pass unmolested. This fact was mentioned to him soon after the surrender of the fort, by an Indian. The fort capitulated soon after this, and had it not been for his absence, he probably would have been taken and carried to Canada, as were all the inmates of the garrison who were not murdered by the perfidy of the French and Indians. The reason they did not fire upon him, probably was on account of their fear of alarming the garrison. He was at Deerfield at the Barn fight, so called, which happened a few days afterwards, and dressed the wounded. (For an account of this action, see my History of the Indians of this place, Gen. Hoyt's Antiquarian Researches, and Williams' Redeemed Captive.)

In the war of 1755, he was surgeon of the army under Johnson, at Lake George, and was present on the day of the bloody morning scout, on the 8th of September, 1755. Heart rending must have been the news of the fall of a dearly beloved brother.* He was in the encampment at the head of Lake George, four miles

* Col. Ephraim Williams, who commanded the detachment, and was shot through the head early in the engagement. Col. Williams was the founder of Williams' College.

from the scene of action. On the attack of Dieskan's troops upon the encampment the same day, he was incessantly engaged in dressing the wounded, and administering medicine for their relief, and he was constantly exposed to the fire of the enemy, and their bullets continually whistled about his ears. Dieskan was wounded in the bladder at this time, and taken prisoner. Of this wound he ultimately died in France. Dr. Williams dressed his wound, and attended upon him while he remained in camp. He afterwards fell under the care of a French surgeon. The Baron, while at Albany, expressed his regret that he could not have the attendance of Dr. Williams, as he believed he would have cured him. In 1756, he held the office of Lieutenant Colonel in one of the regiments at Lake George.

Dr. Williams always had an extensive practice in his profession. I have often heard our aged people speak of him with great respect and love. He was the only surgeon in his day in this part of the country. His ride was very extensive; of course his practice was extremely laborious. Dr. Pynchon, of Springfield, and Dr. Mather, of Northampton, were his cotemporaries. These were the principal physicians in the old county of Hampshire, which then included the county of Berkshire. He was often called into the states of Vermont and New Hampshire, even as far as Claremont, several miles north of Charlestown, which was then called No. 4. His practice as a surgeon must have been very considerable. He procured all the important instruments which were then used in the profession. His reading must have been extensive. He sent to Europe for the most approved authors in the profession of medicine; and his miscellaneous and literary library, it is believed, was not surpassed in this section of the country. He left to his children, besides many other most valuable works, a large edition of the Universal History, and twenty or thirty volumes of the London Magazine, one of the best works then extant.

He was held in high estimation not only as a man, but as a magistrate. He held the office of Justice of the Peace under the crown, and also that of Judge of Probate, and for many years he

held the office of town clerk, and many other important offices in the town. He educated several students in the profession of medicine, who became eminent and useful physicians. He was a firm believer in the truth of the doctrines of the christian religion, but not in the dogmas, or corruptions of it. He was a member of the Rev. Mr. Ashley's church, and was on terms of friendship with him. His death was occasioned by a quick consumption, brought on by a severe cold which he caught in the discharge of his professional duties. It happened on the 28th of September, 1775, in the 58th year of his age. May his descendants emulate his virtues, and imitate his good examples.

ARTICLE XII.

OBSERVATIONS

ON THE

NATURE AND TREATMENT OF

CYNANCHE TRACHEALIS.

BY CHARLES MACOMBER,

Fellow of the Society.

The disease is an inflammation of the mucous membrane of the larynx, sometimes extending into the trachea and its ramifications. The shrill sound of the voice in this malady, resembling the sound of air passing through a brazen tube, probably arises from a spasm of the parts, not unfrequently inducing suffocation. Mere inflammation in some irritable habits may produce this suffocating spasm; but more commonly the inflammation is followed by the formation of a preternatural membrane, consisting of either mucus, or lymph, evaporated to some degree of dryness by the heat of surrounding parts. This extraordinary membrane may com-

pletely line the larynx and trachea, or merely cover them in portions. In every instance, however, it must operate in some degree as an extraneous substance; by its dryness and unyielding nature must increase the inflammation and cough; and, if the disease be not arrested in its progress, must induce the suffocating and the fatal spasm. This malady is an enemy rapid in his march, and sometimes ere we can collect our scattered thoughts, will have planted his standard within the citadel of life, and have done his horrid work. A violent disease is naturally supposed to require a violent remedy. The medicinal agent, however, to be proposed as a remedy in this complaint is exceedingly mild. In truth it is no new medicine. The mode of application merely is new. The remedy is calomel, given in thick syrup, or in molasses simply, in very small and very frequently repeated doses, with the design that the fauces should for a length of time remain constantly smeared by the preparation.* The quantity of calomel administered within a limited time has been such as the patient could well bear without excessive purging. With this remedy no other medicine has usually been united, except ung. hydrargyri, applied externally to the throat. In no instance has ptyalism been produced; and,

* In bad cases of croup a little of the calomel has been exhibited every half minute. The medicine has generally been given in larger quantities at first than afterward; but never in such quantities as to have a powerful and long continued action on the bowels.

since the writer adopted this mode of cure, though he has been situated on the sea coast, and has, within twenty years past seen numerous cases of what appeared to be cynanche trachealis, in no instance has he seen a fatal case.

A wish to produce an increased secretion of mucus from the muciparous glands of the fauces, larynx and trachea led to this mode of applying calomel. It was supposed, if the discharge of mucus from these glands could be expeditiously increased, that the mucus or lymph within the larynx would not become exsiccated in such a degree by the heat of the parts as to form the preternatural membrane, or what has been improperly called by some, the fatal membrane. In agreement with this theory the writer has frequently seen all the distressing symptoms gradually disappearing within an hour from the time of commencing the frequent exhibitions of calomel; and in a short time the disease has entirely vanished. He has not always however been thus fortunate. He has not unfrequently seen cases, in which the cough continued for a week, or longer; though it soon lost its shrillness, and indicated the presence of a loose phlegm. In these cases the calomel has been continued in quantities proportioned to the strength of the patient, and doses of some mild emetic have been exhibited, as occasion required. It may be here rationally conjectured, that the formation of the membrane had taken place, but that by the

frequent exhibitions of calomel an increased discharge of mucus had been produced, enveloping the preternatural membrane in its moisture, and in this manner rendering it less irritating, and less a source of coughing: but the membrane remains. It should be recollected, however, that the membrane is subjected to air, heat and moisture, three agents capable of breaking up its tenacity; and that after this it may be readily thrown off by expectoration. During this state, emetics of ipecacuanha may assist the efforts of the system by promoting expectoration. While the cough however remains shrill, the writer has not seen any benefit from emetics. After the exhibition of tartrite of antimony, in such doses as to excite full vomiting, he has not unfrequently known the disease to return, attended with an increase of all its distressing symptoms.

The exhibition of calomel in any mode may undoubtedly be attended with success; but given in very large doses, as it sometimes has been in this disease, it is apt to produce hyper-catharsis, attended by a considerable degree of debility, and to fail of producing an increased discharge from the muciparous glands of the throat. It is concluded therefore, that in no way can a tendency to ptyalism, or an increased discharge of a fluid mucus from the glands of the fauces and larynx, be so expeditiously, so safely and so effectually excited, as by

the exhibition of calomel, in the mode already prescribed.

Bleeding may remove inflammation of the throat and produce an immediate cure; but it will frequently fail, and in young subjects may induce a dangerous degree of debility, and an increased tendency to spasm. Epispastics may also have been attended with benefit in some cases; but in no instance has the writer had occasion to resort to either of these remedies.

ARTICLE XIII.

Account of an operation at the Massachusetts General Hospital. By J. C. Warren, M. D. Fellow of the Society. Professor of Anatomy and Surgery in Harvard University. Mary Litchfield, aged 49 years. *Emphyma Encystis Steatoma.*

Nov. 10, 1828. This patient has a tumor on the right cheek, which began to appear about twenty years ago, increased gradually till it arrived to about two thirds its present size, when it remained stationary till the last ten months. It commenced just above the angle of the jaw in front of the ear, and is bounded as follows, viz. the zygoma above,

From life by T. Edwards.

Senefelder Lith.

MRS. LITCHFIELD'S TUMOUR.

passes under the ear, which is raised upon it to within a short distance of the mastoid process, thence passes along the jaw to the chin, upward to the ala nasi, measuring around the base sixteen and a half inches, and from the ear over the tumor to the jaw nine and a half inches. The tumor is quite loose and moveable, and has upon it three or four eminences of considerable size which are very soft and elastic, and seem to contain fluid. It is not painful nor tender to the touch.

Nov. 14, Operation. An incision was begun in front of the ear about an inch above the base of the tumor and carried down on the tumor about an inch, then continued round the tumor about the same distance from the base to its lowest point; then another incission on the other side meeting the first; the tumor was then dissected from its connections with the subjacent muscles. It was not connected with the zygoma nor the os maxillæ inferioris by the periosteum. Several considerable arteries were cut, such as the temporal, aural and perhaps facial which ran under it, but they were all stopped by compression till the operation was finished. A very considerable hemorrhage however occurred, and the patient was in a state of syncope during most of the dressing.

The tumor was composed of numerous enlarged glands conglomerated, and the eminences upon it were globular masses of fatty matter.

The wound was neatly closed by adhesive straps, and bandages. About two hours after, she commenced bleeding very freely. Compression was employed to no purpose, in order to check it: the dressings were removed, and the wound exposed to cold air, on account of which the hemorrhage ceased. The patient was now much reduced by loss of blood.

Nov. 17. Patient has been very comfortable, gradually recovering appetite and strength, no more hemorrhage. The dressings were removed and all appears well.

20. Wound almost wholly united, feels very comfortable. Took solution of sulphate of magnesia on the 16th and 18th.

21. Tongue coated; feels very weak. ℞. Hyd. Submur. grs. v. at bed time.

25. Feels weak and dizzy on raising her head; wound continues healing, but a sanious discharge issues from the center of the incission, as if from a cavity. May have the following—R. Infus. Gentian ʒi. Tinct. binchon, ʒi. three times a day for one week; may have meat.

30. Doing well; sanious discharge continues; cheek looks somewhat in folds, terminating in the incission, on account of the distended state of the integuments, which were dissected from the tumor. Sits up in bed much of the time.

Dec. 9. Discharged—well.

APPENDIX.

MASSACHUSETTS MEDICAL SOCIETY.

The Committee of Publication in conformity with a resolution of the Counsellors of the Society, adopted June 7, 1827, herewith present a journal of the proceedings of the Fellows at their last annual meeting, and an abstract of the proceedings of the Counsellors for the year past. From the late period at which this resolution was adopted, it was obviously out of the power of the Committee to obtain any minutes of the discussions that took place at the annual meeting, and they had no other means of complying with the wishes of the Counsellors than by availing themselves of the Records. In future publications, however, a much fuller, and, the Committee hope, more interesting account of the doings of the Society may be inserted.

The Annual Meeting of the Fellows of the Massachusetts Medical Society was held in the new building in the rear of the Boston Athenæum, Pearl street, Wednesday, June 6th, 1827, at 10 o'clock A. M.

The records of the last meeting, and of the meetings of the Counsellors for the past year were read.

Voted—To proceed to the choice of Counsellors for the ensuing year.

Voted—That the number be fixed at 77.—Drs. Z. B. Adams, A. L. Peirson and Anson Hooker, were appointed Scrutineers.

The following Gentlemen were chosen.

Suffolk—Drs. W. Spooner, W. Ingalls, J. G. Coffin, J. Dixwell, J. Jackson, B. Shurtleff, J. C. Warren, J. Gorham, J. Randall, G. C. Shattuck, J. B. Brown, W. Channing, J. Bigelow, G. Hayward, E. Hale, Jr. S. D. Townsend, and J. Ware.

Essex.—Drs. B. L. Oliver, J. D. Treadwell, O. Prescott, J. Gardner, C. Hazeltine, N. Bradstreet, N. Cleaveland, J. Kittredge, Jeremiah Spofford, A. L. Peirson, Andrew Nichols.

Middlesex.—Drs. A. Bancroft, C. Thomas, A. Heywood, R. Wyman, J. P. Chaplin, T. Bucklin, J. Walton, A. R. Thompson, Zadock Howe, and John Hart.

Worcester.—Drs. A. Haskell, S. Batchelder, Jr. D. Thurber, J. Green, B. F. Heywood, J. Homans, C. W. Wilder, Amos Parker.

Hampshire.—Drs. Elihu Dwight, W. Hooker, Alpheus F. Stone, John Stone, Joseph H. Flint, S. W. Williams, David Hunt.

Berkshire.—Drs. H. H. Childs, R. Worthington, W. H. Tyler, C. Worthington, R. Fowler, B. Rogers.

Norfolk.—Drs. A. Holbrook, N. Miller, J. Bartlett, R. Thaxter, S. Bugbee, Jeremy Stimpson, Ebenezer Alden.

Plymouth.—Drs. N. Hayward, Hector Orr, Cushing Otis, Ezekiel D. Cushing, Andrew Mackie, Ezekiel Thaxter.

Bristol.—Drs. Billings, Read, Johnson and Bachelder.

The Report on the state of the Library was then read and accepted.

The following Report was made on the state of the Treasury and accepted.

Massachusetts Medical Society.

The Committee chosen by the Counsellors of the Society, to examine the Treasurer's accounts have attended to the business assigned them, and respectfully submit the following Report :—

They find the Treasurer's accounts to be rightly cast and duly vouched, and that the state of the Treasury is as follows:

The Treasurer has received in assessments during the last year,	$674,00
From the Censors of the First Medical District,	50,00
From the Censors of the Third Medical District,	90,00
On account of Permanent Fund,	296,38
And the balance on hand, from the last year, as by the last report, was	611,61
Making the sum total of receipts	$1721,99

The following sums have been expended during the year ending this day :

Paid for the Annual Dinner,	$358,75
Paid Rent for the Society's Rooms,	100,00
Paid for Printing and Binding,	211,63
Paid to Permanent Fund,	296,38
Paid for Advertising and Sundries,	38,99
Making the whole expenditure to be	$1005,75

This leaves a balance in the hands of the Treasurer, June the 5th, 1827, of $716,24.

The following is the state of the Permanent Fund up to May 15, 1827.

Balance of last year invested in 5 per cent. Bank Notes as by Report,	$1436,78
One year's Interest on the same at 5 per cent.	71,83
Two year's interest on $1800 paid by H. W. Fuller, July 30th, 1826,	216,00
9 1-2 months interest on the last named sum at 5 per cent.	8,55
Amount due from H. W. Fuller, secured by his Notes on interest and Mortgage on Township of land,	1800,00
Making total amount of Permanent Fund,	$3533,16

(signed) J. G. COFFIN,

for the Committee.

Boston, June 5, 1827.

On motion of Dr. Childs of Berkshire, it was

Resolved, That a Committee be appointed to take into consideration the interests of the Medical Profession in this Commonwealth, regarding the disposition of the annual assessments and of the Library of the Massachusetts Medical Society.

Voted, That this Committee consist of nine, one from each medical district, to be nominated by a Committee of three to be appointed by the chair. Drs. H. H. Child, Thurber and Shattuck were appointed, and they afterwards nominated the following gentlemen, all of whom were approved by the Society, viz.

For BERKSHIRE.—Dr. C. Worthington. ESSEX.—Dr. J. Spofford. WORCESTER.—Dr. J. Green. SUFFOLK.—Dr. J. Bigelow. MIDDLESEX.—Dr. Bancroft. NORFOLK.—Dr. Miller. PLYMOUTH.—Dr. Otis. BRISTOL.—Dr. Billings. HAMPSHIRE.—Dr. J. H. Flint.

This Committee was directed to report at the next annual meeting of the Society.

Dr. Warren having intimated his wish to introduce some resolutions for the adoption of the Society on the subject of Intemperance, it was suggested, that as the hour appointed to hear the annual dissertation had arrived, the consideration of the resolutions should be postponed till after the delivery of the discourse. Therefore, it was

Voted, To defer all business till after the address had been delivered.

Dr. Nathaniel Miller, of Franklin, then read an interesting discourse on some points in Surgery, and particularly "on the best mode of detecting deep seated matter."

Voted, That the thanks of the Society be presented to Dr. Miller for his able and practical discourse.

Dr. Warren, then offered the following Preamble and Resolves, which were adopted with great unanimity. All the Resolves were passed *nemine contradicente*, except the fourth.

Whereas, There is reason to believe that the habitual and in-

temperate use of ardent spirits is often the consequence of an opinion that such liquids contribute to the health of men, and whereas, it seems to be a duty peculiarly belonging to this society to oppose and correct so insidious an error.

Therefore, *Resolved*, 1st. That in the opinion of this Society, the constant use of ardent spirits is not a source of strength and vigour, but that it is generally productive of weakness and disease.

Resolved, 2ndly. That this Society agree to discourage the use of ardent spirits, as much as lies in their power; and for this purpose, to discontinue the employment of spirituous preparations of medicine, whenever they can find substitutes; and when compelled to use them for any great length of time, to warn the patient of the danger of forming an unconquerable and fatal habit.

Resolved, 3dly. That the excessive and constant use of wine is in the opinion of this Society, a cause of many diseases; and that though it is useful in some of them, as in the stage of weakness in fever, its use is in these cases often carried too far and continued too long.

Resolved, 4thly, That in the opinion of this Society the most salutary drink for the general use of man is water; and that even this pure liquid must be employed in a rational and discreet manner, especially in hot weather; and that if we were called on to recommend some drink of a more stimulating quality, we should advise the use of malt liquors.

Resolved, lastly, That this Society will use the skill of its members, in ascertaining the best modes of preventing and curing the habit of intemperance; and for this purpose a premium of ——— dollars, shall be offered for the best dissertation on the subject; which, after being approved by the Counsellors, shall be read at the next annual meeting of the Society, and afterwards printed; and that the authors be requested to point out the circumstances, in which an abandonment of the habitual use of stimulating

drinks, is dangerous, and also, the effects of the use of vinous and ardent spirits on the different organs of the animal economy.

The blank in the last resolution having been filled so as to read "fifty dollars," it was thereupon

Voted, That the Counsellors be requested to take all necessary measures to give full effect to the above resolutions.

On motion of Dr. Dixwell, the following Resolve was adopted:

Resolved, That this Society do approve of the proceedings of the Counsellors of the Society with regard to the Circular of the Vermont Medical Society, and that they be requested to adopt such measures as may be necessary to carry into effect the propositions of the Vermont Medical Society, as were fully set forth in the proceedings of the Counsellors.

Voted, To dissolve the meeting.

A true copy from the Records,

Attest, GEO. HAYWARD,

Recording Secretary of the Mass. Med. Society.

ABSTRACT OF THE JOURNAL OF THE COUNSELLORS OF THE MASSACHUSETTS MEDICAL SOCIETY.

A stated meeting of the Counsellors of the Massachusetts Medical Society was held October 4, 1826.

Dr. Warren, in behalf of the Publishing Committee, stated, that considerable embarrassment had been produced in preparing a list of the Fellows of the Society for publication, from the circumstance that several gentlemen who had been elected Fellows, had never signified their acceptance of the Fellowship. After considerable discussion, it was

Voted, That the Counsellors do not consider the written application of Licentiates of the Society and Doctors of Medicine of Harvard University, to become Fellows of the Society, such an assent to the By-laws of the Society as the act of incorporation requires.

Voted, That all gentlemen who have been admitted into the

Society upon their application, and have not signified their acceptance, but have paid their assessments shall be considered Fellows of the Society.

A circular letter from the Medical Society of the state of Vermont, proposing an increase of requirements from all candidates for medical licenses and degrees, and suggesting the expediency of adopting some uniform system on the subject, having been communicated, it was thereupon

Voted, To refer the subject to a Committee; and Drs. Warren, Dixwell and Hayward, were chosen on this Committee.

A special meeting of the Counsellors of the Massachusetts Medical Society was held at the Medical College on Tuesday, November 7, 1826.

The Committee to whom was referred at the last meeting the circular letter from the Medical Society of Vermont, made the following report, which having been read and discussed by sections, was unanimously accepted.

The Committee appointed on the 4th day of October, 1826, to consider a communication from the Medical Societies of Vermont and New Hampshire, and to report to the Counsellors, have attended to the duty assigned them, and respectfully recommend the following answer to said communication: and further, that it be printed and transmitted to the Medical Societies and Medical Institutions in the States of Vermont, New Hampshire, New York, Connecticut and Maine, and to the Medical Institution of Harvard University and the Berkshire Medical Institution in this State.

(Signed) JOHN C. WARREN, JOHN DIXWELL, GEORGE HAYWARD, } *Committee.*

The Counsellors of the Massachusetts Medical Society to the Medical Societies of the States of Vermont and New Hampshire,

Greeting:

The Counsellors of the Massachusetts Medical Society acknowledge the receipt of your letters dated December 15, 1825,

and June 6, 1826. The disposition, manifested in these communications, to improve the character of the medical profession in this part of the country, by elevating the standard of admission to practice, is perceived by them with peculiar satisfaction. Occupied as this society and its Counsellors have been, for the last twenty-five years, in a series of constant and laborious efforts to render our profession respectable and useful; and availing themselves, as they have done, of every circumstance to enforce on candidates the necessity of fully qualifying themselves for the responsible duties of the medical profession, they cannot but regard with deep interest any proposition tending to the accomplishment of objects, in their view, so desirable. The Massachusetts Medical Society have indeed succeeded in establishing a system for their own commonwealth, and have now the gratification of seeing it in full practice. The Medical Institution of Harvard University have done the same. Yet the Counsellors are not desirous of maintaining that their system is perfect; nor would they exclude the consideration of amendments therein; but rather invite and solicit it.

The Counsellors will now take the liberty to apply the experience, the practice of their Society has given, to the proposals contained in your communication, with that frankness which the importance of the subject to the public good and to their own institutions seems to demand.

Proposition 1st.—"Each and every student who may apply for the above purpose, (license to practice) to any county society in this state, instead of applying to the Medical Institution for degrees, after the first day of January, 1827, shall bring a certificate, that his preparatory studies are sufficient to his being able to enter the freshman class in either of the colleges in this state, or submit to be examined to this effect, unless he may have the degree of Bachelor of Arts."

On this we remark—That the requirements for admission to the

freshman class vary in the different colleges; and are much greater in some, than in others. Of course the proposal in question would not have the effect to produce uniformity in the different states; and without this, all attempts at improvement would probably be fruitless. The Medical Society of Massachusetts have always demanded of their candidates a preliminary knowledge of natural philosophy. This is not included in the preparatory studies alluded to, and is yet of great importance to medical education.

Proposition 2d.—"If any candidate shall have the degree of Bachelor of Arts, he shall be required to have studied three full years with some licensed practitioner, with an absence of not more than six weeks in each year. If such candidate has been only fitted to enter college, he shall have studied four years as above, before he shall be admitted to an examination for a license."

To this the Counsellors of the Massachusetts Medical Society are ready to give their unqualified approbation.

Proposition 3d.—"Each candidate applying as above shall have attended at least one course of public Medical Lectures during his pupilage; shall have arrived at the age of twenty-one years, and shall bring certificates of a good moral character."

The Counsellors of this Society, considering courses of lectures to be indispensable to an adequate knowledge of the medical art, and being aware that students acquire much more information from a second course than from the first, do therefore concur in this third proposal, and in the amendment made by the New Hampshire Medical Society, which substitutes two courses of public medical lectures, in some legally organized and respectable medical school, for one course.

Proposition 4th.—" Certificates of study, of morals, &c. shall

be made oath to before some competent civil officer, unless given by some member of a legal Medical Society in this state."

Certificates of study are not admitted by this Society, excepting from their own fellows; and considering the necessary ignorance which the members of one Society must have of those of another, we believe this regulation to be wholesome, and proper to be continued. Such being the case, the taking an oath appears unnecessary, and we would willingly avoid being instrumental in making this practice more common than it is already.

Proposition 5th.—"Being fully impressed with a view of the necessity of a general reform, this society, with due deference, do hereby recommend to the Medical Institutions in this state, and also, in the neighboring states, that candidates be furnished with degrees of Bachelor of Medicine instead of Doctor of Medicine, after the above period of time; and that degrees of Doctor of Medicine be conferred on those who may merit them seven years after the degree of M. B. may have been granted."

To the recommendation contained in this article, the Counsellors do not feel prepared to agree, for reasons which they will proceed to state:

First. The precedents of this country and of Great Britain, not to go further, are against such a measure. In all the universities distinguished as seminaries of medicine, the practice is established of granting the degree of Doctor, and not Bachelor of Medicine, after three, or at most four years of study. Thus it is at Philadelphia, New York, Baltimore and Boston; thus also it is in Edinburgh, Glasgow and Dublin. It is true that a different practice prevails in Oxford and Cambridge in England; but it is well known that these have never been distinguished as seminaries of medical learning, and that few medical degrees are applied for in either of them.

Second. The practice of requiring a degree preliminary to that

of Doctor of Medicine, is useless. The candidate who has obtained the degree of Bachelor of Medicine, being by this admitted to practice, will usually be indifferent to any further degree; and when established in practice, will rarely be found willing to interrupt the course of it, and subject himself to a new examination. In the instances where the secondary degree should be sought, the candidate would not often vary his course of pursuits with a view to such examination; and of course, his literary attainments would not be materially, if at all, increased by the expectation of it. The most that could be expected, would be a review of elementary studies, and an examination grounded on the expectation of such a review.

Third. The experiment of granting the degree of Bachelor of Medicine has been already tried before our eyes, and has failed. In the earlier years of the Medical Institution of Harvard University, this system was established; and it appeared not only that the degree of Doctor of Medicine was rarely sought; but even the degree of Bachelor was not often conferred—the candidates choosing some other seminary where the requirements were less complex. Many of the Fellows of this Medical Society having been disposed to believe that the check to a full introduction to the Society contained in their laws, is not advantageous, it has been recently proposed to abolish it. Hitherto it has been the custom to require every licentiate to wait three years before being allowed admission to the Society. A committee is now in existence for the purpose of inquiring into the expediency of abrogating this law.

Fourth. The proposed plan would drive those students, whose pecuniary means permitted, to other institutions, in which the degree of Doctor of Medicine could be obtained in a shorter time.

Proposition 6th.—"This society hereby directs their secretaries to correspond with the constituted authorities of the several Medical Institutions and Medical Societies in the states of

Vermont, New York, Connecticut, Massachusetts, Rhode-Island, New Hampshire and Maine, and respectfully suggest the propriety of their adopting, simultaneously, regulations similar to the above, for the benefit of community and the reputation of the profession; and they are further directed to accompany these ordinances with such explanations and arguments as the nature of the subject may seem to require."

Proposition 7th.—"In case the above propositions shall be rejected by the constituted authorities of the several Medical Institutions and societies as above, then these ordinances are to be rescinded and not obligatory on the Medical Societies in this state, but if adopted to be strictly observed."

To these the Counsellors are ready to give their assent. They consider it to be not improbable, however, that measures similar to those proposed, may be adopted by them, whether they are generally adopted or not.

The Counsellors are perfectly aware, that changes in the requirements of candidates are attended with great inconvenience, and ought to be made slowly and circumspectly. Their own system is well established, and has been found to answer the purpose of its formation; but notwithstanding these considerations, they are willing to modify it, should it be found necessary to do so, for the purpose of forming a system of general application.

The Counsellors have considered themselves bound to give you information, as soon as possible, of the state of opinion among them, in regard to the proposed changes. At the same time, they would have it understood, that they have no power to alter the laws of their Society; this can be done only at a general assembly of the Society at its annual meeting.

In order that you may be more fully informed of the system established among us, we take the liberty of sending you a copy of our By-Laws, and also a copy of the Statutes of the Medical Institution of Harvard University; some of which we think might be incorporated into the proposed improvements; particularly that

which requires every candidate to write a dissertation on some medical topic.

But it is obvious that the various societies and institutions invited to concur in the proposed regulations, being governed by their peculiar laws and habits, will take different views of any system which may be presented them; and hence, they will no doubt reject some propositions made, and advance others of their own. Now, according to the proposal of the Vermont Society, the whole system is to be relinquished, if not adopted by the constituted authorities of the several Medical Societies and Institutions in the States named above; therefore, it is proposed by this body—

That a Convention of Delegates be held in some central place, for the purpose of agreeing on a uniform system of instruction and examination of students of medicine. That this convention be composed of one delegate from each of the Medical Societies and Medical Institutions of all the States named in the Vermont circular; and of such other States as may be disposed to unite therein. That the meeting for this purpose be held at Northampton, in the State of Massachusetts, on the second Wednesday in May, 1827, at 10 o'clock, A. M., or at such other time and place as may be judged expedient. That if a system of instruction and examination should be agreed on, the same shall be submitted to the different societies and institutions by their respective delegates, and each society and institution shall be at liberty to accept or reject it; and if the greater number of institutions and societies adopt the same, it shall go into operation. It being understood that those who adopt the system receive the benefits expected to arise from a reciprocity in the receptions of practitioners, graduated or licensed at any of the several societies and institutions included in this arrangement; and that those who do not adopt it are deprived of those benefits. Further, that the expense of the attendance of each delegate be defrayed by the society or institution by which he may be elected; and that, should the Medical Society of Vermont adopt the proposal for a conven-

tion, they be requested to issue notices to the several Medical Institutions and Societies in the States abovementioned, inviting them to choose delegates for the convention, at the time and place aforesaid, or to fix some other time and place, if it should be found expedient.

Voted, That the Corresponding Secretary be directed to deliver to the same Committee all communications which he may receive on the subject of their report.

A stated meeting of the Counsellors of the Massachusetts Medical Society, was held at the Medical College, Wednesday, February 7, 1827.

Voted, To proceed to the choice by ballot of a Fellow to represent this Society in the Convention proposed to be held in May next, at Northampton, in the communication above referred to, or at such other time and place as may be fixed. Dr. James P. Chaplin was chosen delegate.

Voted, To appoint a Committee with full powers to take a lease of a room for the meetings of the Society, in the new building in the rear of the Boston Athenæum, provided the rent for the same shall not exceed one hundred and twenty-five dollars per annum.

Drs. Chaplin, Dixwell, and Ware, were chosen on this Committee.

Voted, That all nominations of Honorary Members shall be referred to a Committee of three Counsellors, to report thereon at a subsequent stated meeting.

A stated meeting of the Counsellors of the Massachusetts Medical Society was held in Boston, in the new building in the rear of the Boston Athenæum, on Thursday, June 7, 1827, at 10 o'clock A. M. A quorum being present, it was

Voted, To proceed to the choice of Officers for the ensuing year; and the following gentlemen were elected, viz.

James Jackson, M.D. *President.*

Oliver Prescott, M.D. of Newburyport was chosen Vice-

President, but declining on account of deafness, he was excused by the Counsellors, and they then elected

Amos Holbrook, M.D. *Vice-President.*

John Dixwell, M.D. *Cor. Secretary.*

George Hayward, M.D. *Rec. Secretary.*

Jacob Bigelow, M.D. *Treasurer.*

Enoch Hale Jr. M.D. *Librarian and Cabinet Keeper.*

The Counsellors being thus organized, the proceedings of the last meeting were read.

Voted, To continue in force during the present year, the Rules and Orders of the Counsellors of the last year.

Voted, To proceed to the choice of Censors; and the following gentlemen were chosen, viz.

FOR THE FIRST MEDICAL DISTRICT, AND FOR THE SOCIETY.

Drs. John Dixwell, James P. Chaplin, Rufus Wyman, John Gorham, and Walter Channing.

FOR THE SECOND MEDICAL DISTRICT.

Drs. John Green, John Homans, Benjamin F. Heywood, Edward Flint, and Charles W. Wilder.

FOR THE THIRD MEDICAL DISTRICT.

Drs. Elihu Dwight, Wm. Hooker, Joseph H. Flint, Daniel Collins and Elisha Mather.

FOR THE FOURTH MEDICAL DISTRICT.

Drs. Alfred Perry, W. H. Tyler, Lyndon A. Smith, Hubbard Bartlett, and Orrin Wright.

The Reports of the Committees on the state of the Treasury and the Library were then read, and it was

Voted, That the Librarian be directed to write to the Berkshire Medical District Society, and request them to return the books belonging to the Library, as they have been already retained beyond the period allowed by law.

Reports of the proceedings of the Censors of the first and third Medical Districts were then read.

Voted, To proceed to choose by ballot a Fellow of the Society to deliver the next annual discourse. George C. Shattuck M.D. of Boston, was elected.

Drs. Dixwell, Hayward and Hale, were chosen a Committee on Publications for the ensuing year.

Dr. Warren submitted the following resolution respecting the publication of the proceedings of the Society, and of the Counsellors, which was read and adopted.

Resolved, That the Committee of Publication be directed to print annually, at the time of the publication of the annual dissertation, if this dissertation should be published, the proceedings of the Society at their annual meeting, with such discussions thereon as it may be practicable to obtain in writing,—also, a journal of all important proceedings of the Counsellors, digested from the records; and that this publication be made within one month after the first meeting of the Counsellors; and that when the dissertation is not published at that time, the proceedings as abovementioned be printed and distributed by mail to each of the members of the Society; and if it be published, that it be included in a pamphlet with the proceedings abovementioned and distributed therewith.

The following resolutions were on motion of Dr. Warren adopted by the Counsellors.

Resolved, That in conformity with the resolutions adopted by the Society at their annual meeting on the subject of the excessive use of spiritous liquors, a Committee of three be appointed to read the dissertations which may be sent in agreeably to the said resolutions—and that the said dissertations be sent in to the Recording Secretary on or before the first day of March 1828, and by him delivered to the Chairman of the said Committee; that each dissertation be accompanied by a sealed paper containing the name of the author thereof; that the Committee make report at the annual meeting of the Society; that the dissertation approved be therein read by the Recording Secretary at 12 o'clock,

unless otherwise ordered by the Society, and that the Treasurer be directed to pay the premium to the successful candidate either in money, or by a medal or piece of plate, at the option of the candidate.

Resolved, further, That in case of there being more than one dissertation which deserve publication, that honorable mention thereof be made by the Committee, and their publication be recommended. Drs. Coffin, Thaxter and Wyman, were appointed a Committee to examine the Dissertations on the subject of Intemperance, and to award the premium.

Dr. Coffin having made application for the remission of the assessments of a Fellow of the Society, who was not present,

Voted, That no application of this kind can be received except from the party in writing.

The Recording Secretary was authorized to furnish James P. Chaplin M.D. the delegate to the convention proposed to be held in Northampton, with all the papers in his possession relating to the subject.

The following gentlemen have signified their assent to the By-Laws and become Fellows of the society, during the last year.

Abel Wilder, *Mendon;* Isaac W. Mulliken, *Stow;* John D. Wells, M.D. *Boston;* Sylvanus Plympton Jr. M.D. *Cambridge;* Nehemiah Cutler, M.D. *Pepperell;* John Nelson, *Carlisle;* Erastus H. Bartlett, M.D. *Duxbury;* Joshua Green, M.D. *Groton;* J. Stearns Hurd, M.D. *Charlestown;* Charles Wild, M.D. *Brookline;* Martin Spear, M.D. *Worthington;* John K. Briggs, M.D. *Dedham;* George W. Otis Jr. M.D. *Boston;* Henry Parker, *Grafton;* Ezra Nichols, *Middleton;* Ingalls Kittredge, *Beverly.*

The following gentlemen have been elected Fellows of the Society during the year, but have not yet signified their acceptance of the Fellowship and their assent to the By-Laws, and are not therefore regarded by the act of incorporation as Fellows.

Erastus Sargent, *Lee;* Samuel Smith, *Williamstown.*

The following gentlemen have during the year, been admitted

to a Fellowship on their own application, (having been three years Licentiates of the Society, or Doctors in Medicine of Harvard University) but have not yet become Fellows by declaring their assent to the By-Laws.

Thomas R. Boutelle, M.D. *Leominster;* Augustus Plympton, M.D. *Boston;* Wm. B. Duggan, M.D. *do.;* Winslow Lewis Jr. M.D. *do.;* Simon Whitney, M.D. *Framingham;* Hiram Hosmer, M.D. *Watertown;* Ebenezer Stone, M.D. *Walpole;* John O. Green, M.D. *Lowell.*

The following gentlemen have had leave during the year, to resign their Fellowship. They are by the By-Laws excused from the ordinary duties of Fellows; but may attend meetings of the Society and vote thereat; and they are entitled to receive the publications of the Society in the same manner as ordinary Fellows.

E. A. Holyoke, *Salem;* Leonard Williams, *Chester;* Levi Lincoln, *Hingham;* John Williams, *Cambridgeport;* Peter Goodnow, *Acton;* Silas Allen, *Leominster.*

The following gentleman has withdrawn from the Society, without reasons satisfactory to the Counsellors; William Stone, *Enfield.*

TABLE

Shewing the number of deaths in the City of Boston, from the year 1813 to 1827, inclusive.

	Under 1 year.		1 to 2.		2 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 to 100.		100 to110.		Still born.	Ages Unknown.		Total.
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1813	116	37	52	32	22	19	10	11	14	17	50	40	50	49	59	29	31	31	22	34	19	22	6	9	1	4			36			786
1814	103	58	49	27	29	24	19	9	19	16	55	59	45	42	32	24	17	16	12	13	10	27	9	12		1			32			727
1815	94	69	46	43	25	29	15	19	23	22	52	58	59	46	42	31	30	21	18	35	12	33	3	25		1			21			851
1816	95	91	33	35	30	29	18	11	25	24	65	77	64	50	58	30	27	30	19	30	17	26	5	13		2			31			904
1817	76	80	72	63	39	25	23	10	15	29	44	34	46	53	58	62	35	28	24	24	27	16	13	10		3		1	33			910
1818	83	89	49	49	35	22	18	18	26	17	58	52	57	56	60	49	51	38	36	35	25	24	9	11	2	2			46			971
1819	77	53	52	39	27	14	17	21	21	28	67	58	58	36	44	28	26	29	18	27	13	20	3	13					89	192*		1070
1820	84	73	46	48	30	32	13	14	19	38	66	65	54	45	58	36	43	26	19	24	14	26	9	16		4			89	50	62	1103
1821	103	81	94	94	68	48	31	16	26	27	61	75	58	75	62	46	40	39	26	27	20	28	7	15		3			90	82	69	1420
1822	92	72	55	41	32	22	19	23	22	27	63	66	70	50	69	44	42	34	18	36	17	22	7	15	1	2			115	63	44	1203
1823	96	64	49	45	20	18	20	17	22	29	55	77	58	59	63	56	33	30	20	26	20	22	9	13	3				109	63	28	1124
1824	105	94	54	65	42	40	23	16	24	31	62	67	77	61	64	46	48	36	21	33	17	25	7	13	1	3			89	78	55	1297
1825	134	100	85	85	57	47	27	19	19	35	65	71	85	70	72	45	37	44	21	30	19	36	11	15	1	7			88	59	66	1450
1826	133	91	56	67	39	36	25	20	21	29	70	67	96	62	71	46	35	38	28	33	20	25	6	15	2	2			87	21	13	1254
1827	94	74	32	40	32	24	17	12	28	21	57	67	64	65	61	46	42	30	28	18	16	21	10	15	1	1			83	13	10	1022
	1485	1126	824	773	527	429	295	236	324	390	890	933	941	819	873	618	537	470	330	425	266	373	114	210	12	35		1	848	429	367	16,092
	1126		773		429		236		390		933		819		618		470		425		373		210		35					*192		
																														367		
	2611		1597		956		531		714		1823		1760		1491		1007		755		639		324		47		1		848	988		Total,	16,092

APPENDIX FOR 1828.

The Annual Meeting of the Fellows of the Massachusetts Medical Society was held on Wednesday, the 4th day of June, 1828, at the Lecture Room, in the rear of the Athenæum, Pearl street, at 10 o'clock, A. M.

The records of the last meeting having been read, as well as the records of the Counsellors for the past year, it was

Voted, To proceed to the choice of Counsellors for the ensuing year.

Voted, That the number be fixed at 75.

Voted, That Drs. John D. Wells, A. L. Peirson, and J. V. C. Smith, act as Scrutineers.

The following gentlemen, on counting and sorting the votes, were declared to be elected Counsellors for the ensuing year, viz :

For Suffolk.—Drs. William Ingalls, John Dixwell, James Jackson, Benjamin Shurtleff, John C. Warren, John Gorham, John Randall, George C. Shattuck, John B. Brown, Walter Channing, Jacob Bigelow, Geo. Hayward, Enoch Hale, Jr. Solomon D. Townsend, John Ware, Zabdiel B. Adams, David Osgood.

For Essex.—Drs. Benjamin L. Oliver, John D. Treadwell, James Gardner, Richard Hazeltine, Nathaniel Bradstreet, Joseph Kittredge, Jeremiah Spofford, Abel L. Peirson, Andrew Nichols, Joseph Torrey, Thomas Manning.

For Middlesex.—Drs. Amos Bancroft, Calvin Thomas, Abiel Heywood, Rufus Wyman, James P. Chaplin, Thomas Bucklin,

John Walton, Abraham R. Thompson, Zadock Howe, John Hart.

For Worcester.—Drs. Amos Haskell, Stephen Batchelder, Jr. John Green, Daniel Thurber, Benjamin F. Heywood, John Homans, Charles W. Wilder, Amos Parker.

For Hampshire.—Drs. Elihu Dwight, Alpheus F. Stone, John Stone, Joseph H. Flint, S. W. Williams, David Hunt.

For Berkshire.—Drs. H. H. Childs, R. Worthington, W. H. Tyler, C. Worthington, R. Fowle, B. Rogers.

For Norfolk.—Drs. Amos Holbrook, Nathaniel Miller, John Bartlett, Robert Thaxter, Samuel Bugbee, Jeremy Stimson, Ebenezer Alden.

For Plymouth.—Drs. N. Hayward, Hector Orr, Andrew Mackie, Cushing Otis, Ezekiel Thaxter.

For Bristol.—Drs. B. Billings, Alexander Reed, —— Johnson, Josiah Bachelder.

The following Report was then made on the state of the Treasury.

The Committee appointed to examine the Treasurer's Accounts have attended to that duty and report—that they have found them correctly cast and duly vouched, and the following are the receipts and payments of the Treasurer during the past year, viz.

Received on account of Permanent Fund,		$811 21
From the Censors of the Third Medical District,		35 00
Balance remaining from last year,		716 24
From the Fellows by assessments,		734 00
		$2,296 45
Paid to the Permanent Fund,	811 21	
For Annual Dinner,	363 25	
For Rent in Medical College,	87 50	
For Rent at the Athenæum,	125 00	
For Printing Medical Dissertations,	67 00	
Expenses of Northampton Convention,	67 00	
Sundry bills per vouchers,	328 26	
		$1,849 25

Leaving balance in the Treasury of . . .	447 20
	$2,296 45

The present state of the Society's Permanent Fund is as follows, viz.

In Notes of Henry W. Fuller, on interest, secured by mortgage, ...	$1,200 00
In Notes of the City and American Banks, bearing interest at 4 1-2 per cent.	2,100 00
In Cash, not invested, ...	444 37
	$3,744 37

For the Committee, (signed) JOHN WARE.

Boston, May 31, 1828.

Voted, To accept this Report.

The Report on the state of the Library was then read and accepted.

The Committee appointed at the last annual meeting to take into consideration the interests of the Medical Profession in this Commonwealth, regarding the disposition of the annual assessments, and the Library of the Massachusetts Medical Society, made a Report, which closed with three resolutions; the first of these, which is as follows, was adopted.

"The Committee recommend, that every member of the Society be permitted to take from the Library three books at a time, and to retain them for one year.

The second resolution, which is the following, was referred to the Counsellors.

"The Committee recommend, that the proper and necessary expenses attending the meetings of the several Boards of Censors of the Society be paid out of the Treasury of the Society."

The third resolution recommending the publication, quarterly, of original or selected medical papers for gratuitous distribution among the Fellows of the Society, was rejected

After voting to strike out the preamble of this Report, as thus amended, it was accepted.

The proceedings of the Medical Convention at Northampton then came under discussion, and while the debate was going on, the hour appointed to hear the Dissertation arrived, whereupon it was *voted* to postpone all business till the Address had been delivered.

George C. Shattuck, M. D. then gave a very interesting Discourse on "the Uncertainty of the Healing Art," and closed it with biographical sketches of the late Dr. Samuel Danforth, and of the late Ward Nicholas Boylston, Esq.

Voted, That the thanks of the Society be presented to Dr. Shattuck for his very eloquent and ingenious Discourse.

The discussion on the Northampton Convention was then renewed, and the proceedings of that body were adopted with the following amendments, viz.

1st. That this proviso be added to the third regulation.

Provided, That this regulation shall not be held to repeal, nor interfere with the regulations of any institution or society, requiring additional qualifications beyond what are required by this rule, for the physicians with whom the candidate for a degree of Doctor of Medicine, or for license, shall have studied.

2. To strike out the 5th and 6th Regulations, and insert the following. "V. Every candidate for license to practise Medicine and Surgery, and for the Degree of Doctor of Medicine, shall have attended during the period of his professional pupilage, *two* courses of Lectures, at some Incorporated Institution; namely, on Anatomy, Surgery, Theory of Physic, and General Physiology, Practice of Physic, Materia Medica, Chemistry, and Midwifery. He shall, on examination, give satisfactory evidence of his attainments in each of the subjects above specified, before an authorized Board of Examiners, and shall, before the same Board, read and defend a dissertation on some medical subject.

"It is also recommended as indispensable for a practitioner of Medicine and Surgery, to prosecute dissections.

3d. This amendment consisted in striking out the 10th article of the proceedings of the Convention.

Voted, That the Counsellors be requested to communicate to the proper bodies the doings of the Society in relation to this business.

The following propositions were laid before the Society by the Counsellors; 1st. That it is expedient, so far to alter the requirements of candidates for examination for license, in Chap. iv. Sect. 2d, paragraph 2d, of the By-laws, that all persons who have not graduated at some regular College or University, shall have studied medicine *four* full years, instead of three, as the law now stands; provided that this article do not go into operation till the 4th day of July, 1830.

2d. That it is expedient to repeal that part of the law on licenses, which requires a fee of ten dollars from candidates for license, who bring satisfactory credentials from another State.

These propositions were referred to a Committee of three, with instructions to report at the next annual meeting. And the Committee were requested to consider the expediency of any other alteration of the By-Laws, respecting the admission of candidates for licenses. This Committee consists of Drs. Chaplin, Hale, and Bigelow.

The question proposed by the Counsellors, whether the graduates of the Berkshire Medical Institution, are in every respect, in relation to this society, on a footing with the Medical graduates of Harvard University, was indefinitely postponed.

A letter was read from Samuel L. Mitchell, M. D. requesting the appointment of Delegates to the Convention, to be held at Washington, January 1st, 1830, for the purpose of revising the Pharmacopeia of the United States; it was thereupon *voted*, To refer the subject to the Counsellors.

A Report was made by the Committee, who were last year appointed to examine Dissertations on the subject of Intemperance, and award a Premium, of fifty dollars, if they should deem any one worthy of it, in which they stated that no Dissertation had

been received in season, and that no one had therefore been examined.

Voted, To accept the Report.

Voted, That a premium should be offered, this year, for the same object, and that the Counsellors be authorized to adopt such measures as may be necessary to carry this design into effect.

There being no other business before the Society, it was *voted*, To dissolve the meeting.

GEORGE HAYWARD. *Rec. Secretary.*

ABSTRACT OF THE JOURNAL OF THE COUNSELLORS OF THE MASSACHUSETTS MEDICAL SOCIETY.

A stated meeting of the Counsellors of the Massachusetts Medical Society, was held on Wednesday, October 3d, 1827, at the Room of the Society, in the rear of the Athenæum, Boston.

The Corresponding Secretary reported a letter from Dr. Shattuck, signifying his acceptance of the appointment of the Counsellors to deliver the next annual discourse before the Society.

Dr. Chaplin, the delegate of the Society to the Convention recently held at Northampton, read a Report, which was accepted.

Voted, That the personal expenses of the delegate while in the service of the Society, be paid by the Treasurer.

Voted, That the Treasurer be directed to pay one half of the amount of the bill incurred by the Central Committee of the Convention for printing, to be hereafter collected from other Societies and Institutions that sent delegates to that body.

The Recording Secretary reported that he had received from the Chairman of the Central Committee of the Convention a sufficient number of copies of the doings of that body at Northampton, to distribute one to each Fellow of the Society, which was done by mail.

On motion of Dr. Chaplin it was *voted*, That a Committee be appointed to consider the proceedings of the Medical Conven-

tion at Northampton, and to report thereon at the next stated meeting of the Counsellors.

This Committee consists of Drs. Warren, Dixwell, Shattuck, Hale and Hayward.

Voted, That the President be requested to appoint the meetings of the Counsellors in February, and October, in future at 11 o'clock, A. M. instead of the usual hour.

Voted, That a Committee be appointed to consider the expediency of applying to the Legislature for an alteration of the Act of Incorporation of this Society.

Drs. Chaplin, Hale and Ware were chosen on this Committee.

The Committee of Publication having applied to the Post Master General of the United States, for the purpose of obtaining leave to transmit the annual publications of the Society by mail, as periodicals, received the following answer.

GENERAL POST OFFICE DEPARTMENT, JULY 27, 1827.

SIR,

The Publication issued annually under the superintendence of the Massachusetts Medical Society comes within the rule of construction relative to periodical publications. Though issued but once a year, yet it is a periodical, and will be subject to no other postage than what the law requires, to be paid on periodical publications. Please show this to the Post Master, and it will give him pleasure to afford every lawful facility in the circulation of so useful a branch of knowledge, as that of Medical Science.

Yours, Respectfully,

(signed) JOHN Mc'LEAN.

JOHN DIXWELL, M. D.

Chairman of the Committee of the Massachusetts Medical Society, Boston.

On motion of the Recording Secretary it was *voted*, That it is expedient, in the opinion of the Counsellors, that a half

volume of medical communications be annually published by this Society.

Voted, That with this view the Committee of Publication be directed to issue a circular letter to every Fellow of the Society, requesting communications on subjects connected with Medical Science.

Voted, That all such communications, if approved by the Counsellors, shall be published either with the Medical Dissertation or otherwise, provided they do not exceed a half volume annually.

A stated Meeting of the Counsellors was held on Wednesday, February 6th, 1828, at 8 o'clock, A. M. at the Room of the Society, Pearl Street.

The Committee appointed at the last meeting of the Counsellors, to consider the proceedings of the Convention at Northampton, reported in part ; and the whole subject was referred to the same Committee, with instructions to report at an adjourned meeting.

The Committee appointed to consider the expediency of applying to the Legislature for an alteration of the act of 1803, relating to this Society, made a Report, which was accepted.

Voted, That the same Committee be instructed to prepare a draft of an application to the Legislature, and that it be laid before the Counsellors for their approbation at the adjourned meeting.

On motion of Dr. Bigelow, Treasurer, it was

Voted, That a Committee of three be appointed to consider and report on the means which appear to them best suited to promote the security and increase of the Society's permanent fund.

Drs. Bigelow, G. Hayward and Hale, were appointed on this Committee.

Voted, To proceed to choose by ballot a Committee to examine the Treasurer's accounts, and report at the annual meeting of the Society.

Drs. Coffin and Ware, were chosen.

Drs. Channing and G. Hayward, were chosen in the same way, to examine the Library, with directions to report at the same time.

Voted, To adjourn to this day fortnight, Wednesday, February 20th, at 11 o'clock, A. M.

An adjourned meeting of the Counsellors was held on Wednesday, February 20th, at 11 o'clock, A. M. at the Society's Room, Pearl Street.

The Records of the last meeting having been read, the Committee appointed to consider the proceedings of the Convention at Northampton, made a Report, which was discussed and adopted with some amendments.

It was thereupon,

Voted, That the Report be recommitted to the same Committee, with instructions to embody into it the various alterations and amendments, to have it then printed, and a copy of it sent to each Fellow of the Society.

The following is the Report as amended.

REPORT.

The Committee of the Counsellors of the Massachusetts Medical Society, appointed to consider the proceedings of the Medical Convention, held at Northampton, in June, 1827, beg leave to report, respectfully ;

That, considering this to be a subject involving the highest interests of Medical Science in this part of the country, they have given it the most serious attention.

That they have taken into view, the principles on which a Medical Education has been, and ought to be conducted in this country ; the propositions made to the society, which originated the Convention ; and the proceedings of the Convention itself, as communicated to the Counsellors by the Central Committee of that Convention.

The great principles by which a Medical Education should be regulated, it appears to your Committee, are, a sufficient knowledge of the Medical Art, and a uniform standard by which this

knowledge is to be tested. The Massachusetts Medical Society and other similar Societies were instituted, they apprehend, by the Legislature, to decide what degree of knowledge should be required, and how this knowledge should be tested. The test must from its nature be the same, throughout the same Society or district of Country.

The original propositions on which the proceedings of the Convention were founded, came to this Society from the Vermont Medical Society, accompanied and modified by proceedings of the Medical Society of New Hampshire. Thus presented to them, these propositions appeared to exhibit three prominent principles, viz. The adoption of a uniform standard of Medical Education; the raising of that standard, by requiring two courses of lectures; the prolongation of the term of study, from three to four years, for those who have not received a degreee of Bachelor of Arts.

In the proceedings of the Northampton Convention, the first and second of these principles do not appear as originally presented and adopted by the Counsellors; the third has been adopted.

In the measures taken by the Counsellors of this Society, they appear to have been influenced by the first and second, as well as by the third of these considerations; and to have believed them to be essential parts of the same system. From these views of the subject, the Committee would think it proper to propose the following amendments in the regulations adopted by the Convention:

That a proviso be added to the third regulation; "That this regulation shall not be held to repeal, nor interfere with the regulations of any Institution or Society, requiring additional qualifications beyond what are required, by this rule, for the physicians with whom the candidate for a Degree of Doctor of Medicine, or for License, shall have studied."

To strike out the 5th and 6th Regulations, and insert the following:

V. "Every candidate for License to practise Medicine and Sur-

gery, and for the Degree of Doctor of Medicine, shall have attended, during the period of his professional pupilage, two Courses of Lectures, at some incorporated Institution; Namely—On Anatomy, Surgery, Theory of Physic, and general Physiology; Practice of Physic; Materia Medica, Chemistry, Midwifery. He shall, on examination, give satisfactory evidence of his attainments in each of the subjects above specified, before an authorized Board of Examiners, and shall, before the same Board, read and defend a dissertation on some medical subject.

"It is also recommended as indispensable for a practitioner of Medicine and Surgery, to prosecute Dissections."

The Committee are unable to satisfy themselves with any proposed division of the branches of Lectures; and think this must be left to be arranged by individual Institutions. Nor have they been able to fix a determinate number of Lectures, as proper to constitute a complete course; but they are of opinion that the number should be such as to afford a complete set of demonstrations, in all the demonstrative branches; namely—Anatomy, Operative Surgery, Chemistry, Midwifery; and that, in the non-demonstrative branches, they should be as complete as circumstances permit.

In Article 10, page 10, 4th line, after the word "and" they recommend to insert the following: "Provided, that such tribunal should see no cause to doubt that such applicant has complied with the rules of this Association, and then"—

Dr. Warren moved the following resolutions, which were adopted.

Resolved, That it be recommended to the Society at their annual meeting to repeal that part of the law on Licenses, which requires a fee of $10 from candidates for License, who bring satisfactory credentials from another State.

Resolved, That the Counsellors propose to the Society, so far to alter the requirements of candidates for examination for License in chap. iv. sec. 2. paragraph 2d of the By-laws, that all persons who have not graduated at some regular College or University,

shall have studied medicine four full years, instead of three, as the law now stands ; provided that this article do not go into operation till the 4th day of July, 1830.

The Committee who were instructed at the last meeting to prepare a draft of a petition to the Legislature, for some alterations in the act of incorporation of the Society, made a Report, upon which considerable discussion arising, it was *voted*, To postpone the consideration of the subject to an adjourned meeting.

Voted, To adjourn to Wednesday the 27th instant, at 3 o'clock, P. M.

An adjourned meeting of the Counsellors was held this day, Wednesday the 27th of February, at 3 o'clock, P. M. at the Society's Room, Pearl street.

On motion of Dr. Hale, the vote passed at the stated meeting in February, by which the Report of the Committee on the subject of applying to the Legislature for an alteration in the Act of Incorporation of this Society was accepted, was reconsidered.

The question then arose on the acceptance of the Report of the Committee, and after some discussion the Report was rejected.

On motion of Dr. Childs, it was *voted*, That the Counsellors will bring before the Society at their next annual meeting the question, whether the graduates of the Berkshire Medical Institution are in every respect, in relation to this Society, on a footing with the Medical graduates of Harvard University.

Voted, To dissolve the meeting.

A stated meeting of the Counsellors of the Massachusetts Medical Society, was held on Thursday, June 5th, 1828, at the Society's Room, Pearl Street.

Voted, To proceed to the choice of Officers for the ensuing year. The following gentlemen were then chosen.

James Jackson, M. D. *President.*

Amos Holbrook, M. D. *Vice-President.*

John Dixwell, M. D. *Corresponding Secretary.*

George Hayward, M. D. *Recording Secretary.*
Walter Channing, M. D. *Treasurer,* in place of
Dr. Bigelow, resigned.
Enoch Hale, Jr. M. D. *Librarian* and *Cabinet Keeper.*

The meeting being thus organized, the proceedings of the last meeting were then read.

Voted, To continue in force the Rules and Orders of the Counsellors of the last year, till otherwise ordered.

Voted, To proceed to the choice of Censors; and the following gentlemen were then chosen, viz.

FOR THE FIRST DISTRICT, AND FOR THE SOCIETY.

Drs. John Dixwell, James P. Chaplin, Rufus Wyman, John Gorham, Walter Channing.

FOR THE SECOND DISTRICT.

Drs. John Green, John Homans, Benjamin F. Heywood, Edward Flint, Charles W. Wilder.

FOR THE THIRD DISTRICT.

Drs. Elihu Dwight, Joseph H. Flint, Daniel Collins, Elisha Mattin, Job Clark.

FOR THE FOURTH DISTRICT.

Drs. Alfred Perry, William H. Tyler, Lyndon A. Smith, Hubbard Bartlett, Orren Wright.

The following Committees were then chosen by ballot, viz.

Drs. John Dixwell, George Hayward, Enoch Hale, Jr. *Committee of Publication,* and John Dixwell, James P. Chaplin, Jacob Bigelow, *Committee on Resignations.*

The Report on the state of the Treasury was read.

A Committee was appointed to examine into the funds of the Society, regarding its receipts and expenditures; and the same Committee were instructed to inquire into the expediency of recommending a deduction of the annual assessment.

Drs. N. Miller, N. Bradstreet, and J. Green were appointed on this Committee.

Voted, That the Librarian be authorized to sell any of the publications of the Society that may be now on hand, at one dollar a volume, to those Fellows who have been elected or admitted since their publication.

John Gorham, M. D. of Boston, was then chosen by ballot to deliver the next annual discourse before the Society.

The following Report was made respecting the permanent fund of the Society.

The Committee to whom was referred the subject of investing the permanent fund of the Massachusetts Medical Society, Report;

That the Treasurer be directed to pay to the Massachusetts Hospital Life Insurance Company, in trust for the Massachusetts Medical Society, all monies which he may now hold, or may hereafter receive, belonging to the permanent fund of said Society; the same to accumulate at compound interest, and to be subject to withdrawal at the most frequent periods allowed by the rules of said Company, upon a regularly certified vote of the Counsellors of said society.

(signed) Jacob Bigelow, George Hayward, Enoch Hale, Jr. } *Committee.*

Boston, May 30, 1828.

Voted, To accept the Report.

Reports were then read from the Censors of the 1st, 2d, and 3d Medical Districts.

Voted, To allow the account of the Censors of the third District.

Voted, That the Corresponding Secretary be directed to address a letter to the Secretary of the Board of Censors of the second District, requesting information on the subject of licensing Medical graduates of Yale College, and Licentiates of the Connecticut Medical Society.

A Committee, consisting of Drs. Gorham, Peirson, and Hale, were appointed to prepare and report a list of books required and recommended to be read by candidates for Licenses.

Drs. Warren, Ware, and Z. B. Adams, were chosen a Committee to examine the Dissertations that may be offered on the subject of Intemperance, and adjudge the premium.

The resolution which was referred to the Counsellors by the Society, respecting paying from the treasury the necessary expenses of the Censors, was indefinitely postponed.

The Corresponding Secretary was directed to communicate to the Central Committee of the Northampton Convention the result of the doings of the Society in relation to the proceedings of that body.

The letter referred to the Counsellors by the Society, from Dr. Mitchell, on the subject of the National Pharmacopeia, having been read, Dr. Bigelow was chosen a Committee to consider and report at the next meeting, how many delegates it was intended this Society should appoint.

Voted, That a Committee be appointed to inquire what debts are due to the Society, and how far any extraordinary steps are necessary to collect the same.

Voted, That this Committee consist of Drs. J. Bigelow, G. Hayward and E. Hale, Jr.

Voted, That the Treasurer be authorized to employ a professional book-keeper to assist him in the duties of his office, provided the expense of the same do not exceed twenty dollars annually.

Voted, That a premium of one dollar for each printed page, be paid to the authors of such original Medical Communications as shall be furnished by the Fellows of this Society, previous to the first day of May next, and shall be approved by a Committee appointed for that purpose; provided, that the Communications so approved do not amount to more than 250 printed pages; and if they exceed that amount, the Committee shall make a selection of such as they shall judge the most worthy of publication, not exceeding that number of pages.

The President, and the two Secretaries were appointed the Committee, to examine the communications.

Voted, To appoint a Committee to superintend the transfer of

the books, money and papers, from the late Treasurer to the present.

Voted, that this Committee consist of Drs. Thaxter, Z. B. Adams, D. Osgood.

There being no further business, it was *voted,* To dissolve the meeting.

The following gentlemen, having been duly elected, have signified their acceptance of fellowship, and declared their assent to the By-laws, and thus become Fellows of the Society, during the year, viz. John Brooks, *Barnardston;* Erastus Sergeant, *Lee,* Samuel Smith, *Williamston.*

The following gentlemen, having been admitted in course, have during the year declared their assent to the By-laws, and become Fellows of the Society, viz.

John O. Green, M. D. *Lowell;* Thomas R. Boutelle, M. D. *Leominster;* Ebenezer Stone, M. D. *Walpole;* Simon Whitney, M. D. *Framingham;* Wm. B. Duggan, M. D. *Medford;* Augustus Plympton, M. D. *Boston;* Winslow Lewis, Jr M. D. *Boston;* Samuel Shaw, M. D. *Plainfield;* Malthus A. Ward, M. D. *Salem;* Hiram Hosmer, M. D. *Watertown;* Benjamin Barrett, M. D. *Northampton;* Leonard Proctor, M. D. *Lexington;* Joshua H Hayward, M. D. *Boston;* Edwin Adams, M. D. *Boston;* John Jeffries, M. D. *Boston;* Timothy Gordon, *Weymouth.*

The following gentlemen have had leave during the year, to resign their Fellowship, viz.

Timothy L. Jennison, M. D. *Cambridge;* Austin Flint, M. D. *Leicester;* Nehemiah Cleaveland, *Topsfield;* William Hooker, M. D. *Westhampton;* Thomas Sturtevant, *Middleborough;* Stephen Ball, *Northborough;* and Asaph Byam, *Westford.*

APPENDIX FOR 1829.

The Annual Meeting of the Fellows of the Massachusetts Medical Society was held on Wednesday, June 3d, at the Athenæum Lecture Room, Pearl-street, at 10 o'clock, A. M.

The records of the last meeting having been read, it was voted to proceed to the choice of Counsellors.

Drs. Z. B. Adams, J. Jeffries, and W. Lewis were appointed Scrutineers.

It appeared on counting the votes, that the following gentlemen were elected, viz :

For Suffolk.—Drs. William Ingalls, John Dixwell, James Jackson, Benjamin Shurtleff, John C. Warren, John Randall, George C. Shattuck, John B. Brown, Walter Channing, Jacob Bigelow, George Hayward, Enoch Hale, Jr. Solomon D. Townsend, Zabdiel B. Adams, John Ware, David Osgood, Edward Reynolds.

For Essex.—Drs. Benjamin L. Oliver, James Gardner, Richard Hazeltine, Abel L. Peirson, Andrew Nichols, Thomas Manning, Samuel Johnson, Joseph Torrey, Joseph Kittredge, Jeremiah Spofford, Richard S. Spofford.

For Middlesex.—Drs. Amos Bancroft, Calvin Thomas, Abiel Heywood, Rufus Wyman, Thomas Bucklin, John Walton, Abraham R. Thompson, Zadock Howe, John Hart, William J. Walker.

For Worcester.—Drs. Stephen Batchelder, Jr. John Green, Daniel Thurber, Charles W. Wilder, Benjamin F. Heywood, Amos Parker, Edward Flint, Gustavus T. Peck.

For Hampshire.—Drs. Elihu Dwight, Joseph H. Flint, Joshua Frost, Alpheus F. Stone, Stephen W. Williams, Reuben Champion, Jr.

For Berkshire.—Drs. Henry H. Childs, Robert Worthington, William H. Tyler, Charles Worthington, Royal Fowler, Benjamin Rogers.

For Norfolk.—Drs. Amos Holbrook, Nathaniel Miller, John Bartlett, Robert Thaxter, Samuel Bugbee, Jeremy Stimson, Ebenezer Alden.

For Plymouth.—Drs. Nathan Hayward, Hector Orr, Cushing Otis, Andrew Mackie, Ezekiel Thaxter.

For Bristol.—Drs. Benjamin Billings, Alexander Reed.

For Barnstable.—Drs. Joseph Sampson, Aaron Cornish.

The Treasurer made the following Report on the state of the Treasury.

"Agreeably to a vote passed by the Counsellors at a meeting held since the last annual meeting, which directs that the Treasurer for the time being shall present to the Society at its annual meeting a statement of the receipts and expenditures of the Society for the year, and also an account of the Permanent Fund, the Treasurer offers the following Report:

PERMANENT FUND.

This consists of the proceeds of the sale of a township of land in the State of Maine, granted to the Society by the Commonwealth, to erect a building for the Society. The present investment and state of the same is as follows:

A note of hand of H. W. Fuller, secured by mortgage on above township, ...	$1,200 00
One year's interest (for 1827) in same, not invested,	72 00
A Policy, No. 578, in Hospital Life Annuity Office, original investment, ...	2,549 87
Interest on same, to Dec. 31, 1828, . .	66 62
Total amount of Permanent Fund, . . .	$3,888 49

RECEIPTS DURING LAST YEAR, EXCLUSIVE OF BANK NOTES, AND FULLER'S NOTE, BELONGING TO PERMANENT FUND.

Cash received from late Treasurer, . . .	$823 20
Of which $444 37 belongs to Permanent Fund,	
Assessments and Arrearages paid to present Treasurer,	399 00
Cash paid for Licenses by Secretary of the First Board of Censors, June 9th, 1828, ...	110 00
Interest on H. W. Fuller's Note, August, 1828, .	72 00
Cash paid by James Jackson, M. D. Chairman of the Central Committee of the Northampton Convention, May 9th, 1829, ...	34 25
May 9th, 1829, Cash received of Secretary of Censors of the first District for Licenses, . . .	60 00
	$1,498 45
Deduct Expenses, ...	923 19
Balance in Treasury, ...	$575 26

$72 belonging to Permanent Fund.

Errors excepted. All which is respectfully submitted, by

WALTER CHANNING, *Treasurer.*

Boston, May 24th, 1829.

EXPENDITURES FOR THE LAST YEAR.

Annual Dinner, ...	$224 75
Account Books for opening new books, . .	20 00
Rent of Room, ...	125 00
Miscellaneous, ...	31 57
Paid to Policy for Permanent Fund, . .	444 37
Paid to Permanent Fund Interest on H. W. Fuller's Note, ...	72 00
Paid to do. interest allowed by Annuity Office in Exchange of Stock, ...	5 50
	$923 19

The following report was then read—

Boston, May 26, 1829.

The subscribers a Committee of the Counsellors of the Massachusetts Medical Society, for examining the Treasurer's accounts, have attended to their duty, and find the said accounts to be correctly cast and duly vouched.

BENJAMIN SHURTLEFF,
JACOB BIGELOW.

It was thereupon voted to accept the above reports.

In consequence of the death of Dr. Chaplin, Chairman of the Committee on the propositions made at the last annual meeting by the Counsellors respecting licentiates, no report was made on the subject, and the whole business was referred to a new committee, consisting of Drs. Hale, Bigelow, and Wyman.

The following Report which the Counsellors voted to recommend to the Society for its adoption was then read—

REPORT.

The Committee appointed to consider if any changes be necessary or expedient in the laws of the Commonwealth, in relation to the Massachusetts Medical Society, and if any such changes be necessary or expedient to call a special meeting of the Counsellors before the annual meeting of the Society have attended to their duty, and beg leave to report—

That they find a large amount due to the Society, from delinquent Fellows, and having taken advice of Counsel learned in the law, they find that to collect the same under the present acts of the Legislature, in regard to the same, it will be necessary to make various specific declarations of great length, and requiring great legal accuracy, and this not for a whole amount of assessments due by a single Fellow, but for each annual assessment separately involving thereby the Society in great expense. The Committee were therefore advised to petition the Legislature for an act by which they may be authorized to collect their dues in an action of debt, declaring therein generally against the defendant, as being indebted to the Society for his annual assess-

ments. A draft of such petition and act has been made, and is submitted to the Counsellors with this report.

The Committee in further prosecution of their commission have been led to examine the operation of certain provisions contained in the 4th section of an act passed March 8th, 1803, and report that it is expedient to petition the Legislature that so much of this section of the same act as contains the condition of the time at which licentiates of this Society and medical graduates of Harvard University may become Fellows of this Society, and the provision in the same section of the same act which allows licentiates the use of the library of the Society be repealed.

The Committee further report, that it is expedient to add a by-law to those already existing, which shall make it the duty of the Recording Secretary immediately before the annual meeting to present the Treasurer with a correct list of all those who have had permission to retire during the preceding year, and to state such facts in respect to their dues, if there be any, as the duties of the Treasurer may require.

All which is respectfully submitted by

WALTER CHANNING,
(Signed) Z. B. ADAMS,
E. HALE, Jr.

April, 1829.

Voted, To accept the Report.

Voted, That the petition to the Legislature be signed by the President, and that the Counsellors take such measures as they may deem necessary to carry into effect the wishes of the Society in relation to the business.

The Committee to whom was referred the consideration of the arrearages due to the Society, offered the following resolutions, which were adopted.

Resolved, That the Treasurer of the Society address a letter to the Censors of the several Districts, whose returns are deficient, requiring from each an account of the number of licenses issued by their several Boards respectively, and of the sums received

upon them, and of the disposition which has been made of the same since the year 1819.

Resolved, That it shall be the duty of the Recording Secretary, along with each set of licenses he from time to time may issue to the Censors of the several medical districts, to furnish a printed copy of all the laws in relation to the returns which the Censors are required to make to the proper officers of the Society.

Resolved, That in the cases of those who have retired from the Society, and who are indebted on the books of the Treasurer, of those who have left the State, of those who state they are poor, and the aged, the Treasurer be authorized to delay suits until he lay the same before the Counsellors.

The Committee that was appointed at the last stated meeting of the Counsellors, to prepare a petition to the Legislature, to modify the existing laws relating to subjects for dissection, and offer the same at this meeting of the Society, reported that though they had prepared such a petition, it was not expedient in their opinion to act upon it at the present time, and that the whole subject had better be referred to a large committee, to consider what measures it was expedient under existing circumstances to adopt in relation to the business. This led to a very full and interesting discussion, and every gentleman who addressed the meeting, seemed fully impressed with the importance of the object, though there was some slight difference of opinion as to the best mode of attaining it. It was finally agreed to refer the whole subject to a committee of nine, with a request that they would report to the Counsellors at their stated meeting in October next, and the Counsellors were authorized to take such measures as they might deem necessary in behalf of the Society. The following gentlemen were chosen to serve on this committee, viz. Drs. A. L. Peirson, of Salem, John C. Warren, John D. Wells, John Ware, William Ingalls, George C. Shattuck, Boston, Nathaniel Miller, Franklin, Nehemiah Cutter, Pepperell, and John Brooks, Bernardston.

The Committee appointed the last year to examine the Dissertations on Intemperance, and award the premium of the Society, made the following Report.

The Committee appointed to examine the Dissertations on the bad effects of ardent spirits on the human body, beg leave to report, that the Dissertation to which, in their judgment, the premium offered by the society should be assigned, has been found to be written by WILLIAM SWEETSER, M. D. Professor of the Theory and Practice of Medicine in the University of Vermont. They have now the honor to lay it before the Society, agreeably to the order passed on the subject.

(Signed) J. C. WARREN, Z. B. ADAMS, JOHN WARE, } *Committee.*

The Dissertation was then read, in conformity with the vote passed at the time of offering the premium, by the Recording Secretary.

There being no other business, it was *voted*, To dissolve the meeting.

GEORGE HAYWARD, *Rec. Sec'y.*

ABSTRACT OF THE JOURNAL OF THE COUNSELLORS OF THE MASSACHUSETTS MEDICAL SOCIETY.

A stated meeting of the Counsellors of the Massachusetts Medical Society was held this day, Wednesday, October the 1st, 1828, at 11 o'clock, A. M. at the Society's Room, Pearl street.

The records of the last meeting having been read, the President informed the Counsellors that the venerable Dr. Holyoke, of Salem, was now visiting the Athenæum, it was thereupon on motion of the Vice President, *voted*, That Drs. Holbrook, Hart, and Brown be a committee to wait upon him, and request the honor of his company at the present meeting.

The Corresponding Secretary having read the answer of the Censors of the Second District to the letter addressed to them, respecting the examination of candidates for license, it was

Voted, To refer it to Drs. J. C. Warren, J. B. Brown, and Z. B. Adams, with a request that they would ascertain what qualifica-

tions are required of candidates for license, by the different Boards of Censors, and report at the next meeting.

Dr. Bigelow reported that it is expedient for the Counsellors to ballot for three delegates to attend a convention at Washington, January 1st, 1830, for the purpose of revising the Pharmacopœia of the United States.

Voted, To accept this report, and to proceed to ballot. The following gentlemen were then chosen delegates, viz.—Drs. John Gorham, Boston; Daniel Oliver, Hanover, N. H.; and Eli Ives, New Haven, Conn.

A letter was read from Dr. John Gorham, in which he signified his acceptance of the appointment of the Counsellors, to deliver the next annual discourse before the Society.

In consequence of an inquiry of the Treasurer, it was

Voted, That the Society has no claims on Fellows while residing out of the state.

The Committee appointed at the last meeting to prepare a list of books to be required and to be recommended to candidates for license, made a report, the further consideration of which was postponed till a Committee should report on the expediency of transferring Good's Nosology from the list of required books to the list of recommended ones, and of placing Cullen's Nosology in the same list. This Committee consists of the President, Drs Bigelow and Wyman.

The Counsellors were honored at this meeting by a visit from Dr Holyoke, who completed his hundredth year on the 13th of August last. The presence of this venerable man, still possessing in a high degree his mental and bodily powers, was highly gratifying, and was attended with many interesting associations, as no one was unmindful of the fact that he was one of the founders of the Society, and presided over it when it first went into operation, nearly half a century ago. After receiving the salutations of the gentlemen present, he retired, escorted by the Committee who were appointed to wait upon him at the early part of the meeting.

1829. A stated meeting of the Counsellors was held this day, February 4th, at 11 o'clock A. M. at the Society's Room, Pearl street.

The Committee appointed at the last meeting on the subject of Cullen's and Good's Nosology, reported, that Good's Nosology be placed among the required books, and Cullen's in the list of recommended ones.

Voted, To accept the report.

Voted, To proceed to the choice by ballot, of two Committees, to report at the annual meeting of the Society. The one on the state of the Treasury, and the other on the state of the Library. Drs B. Shurtleff and J. Bigelow were chosen to examine the Treasurer's accounts, and Drs J. B. Brown and Z. B. Adams to examine the Library.

Voted, That the Treasurer be directed to present annually to the Society an account of the funds, exhibiting the amount received for assessments for the current year, and that arising from arrearages and other sources, and also a statement of the expenses, specifying the object to which the money has been applied, together with an account of the permanent fund.

In consequence of a statement of the Treasurer that there is some difficulty in collecting in a legal way the amount due to the Society, it was

Voted, That a Committee be appointed to examine into the arrearages due to the Society, and to consider the measures proper to be adopted to collect the same, and report to the Society at the annual meeting. The Treasurer, (Dr Channing) Dr E. Hale and Dr Z. B. Adams were chosen as a Committee for the purpose.

On motion of Dr Peirson, of Salem, it was

Voted, That a Committee be appointed to prepare a petition to the Legislature to modify the existing laws which now operate to prohibit the procuring of subjects for anatomical dissection, and to report the same for the consideration of the Society at their annual meeting in June. This Committee consists of Drs J. C. Warren, E. Alden and A. L. Peirson.

The Corresponding Secretary having stated that in consequence of the death of James P. Chaplin, M. D. there was a vacancy in the Board of Censors for the First District, and for the Society, Dr George Hayward was thereupon chosen to fill it.

The Librarian was directed to purchase such works on Natural Philosophy and the Latin language, to be placed in the hands of the Censors of the Society, as are required for the examination of candidates.

Voted, That the list of books that was reported at the last meeting be recommitted, with a request that a report should be made at the next meeting of the Counsellors. Drs John Gorham, E. Hale, J. C. Warren, W. Channing, G. Hayward, J. Bigelow, and J. Ware were chosen on this Committee.

Voted, That a Committee be chosen to consider if any changes be necessary or expedient in the laws of the Commonwealth in relation to this Society, and if the Committee should be of opinion that any change be necessary or expedient, they be authorised to call a special meeting of the Counsellors, before the annual meeting of the Society.

This subject was referred to the Committee who are to consider what measures are to be adopted in regard to the arrearages due to the Society.

A special meeting of the Counsellors was held this day, April 15th, at 12 o'clock, M. at the Society's Room, Pearl street.

The records of the last meeting having been read, the President stated that he had called this meeting in consequence of the decease of John Gorham, M. D. who had been appointed to deliver the discourse at the next annual meeting, the bye laws not having made any provision for such a case.

The President also availed himself of the opportunity to announce the death of Edward Augustus Holyoke, M. D. the first President of this Society.

It was thereupon

Voted, To proceed to the choice of a person to deliver the next annual Discourse, in the place of Dr Gorham deceased.

On counting the ballots it appeared that they were all given for Benjamin L. Oliver, M. D. of Salem.

It was then *Voted*, That the person appointed to read the discourse at the next annual meeting be requested to deliver an address commemorative of the character of the late venerable Dr Holyoke, the first President of this Society, and to take such notice as he may think proper of the other highly distinguished Fellows of the Society who have died during the present year.

Dr Bigelow was chosen by ballot as Delegate from the Society to the Convention to be held in Washington, in January, 1830, in relation to the Pharmacopœia of the United States, in place of Dr Gorham, deceased.

Voted, That the expenses of the Delegate be paid from the Treasury of the Society.

The Committee appointed at the last meeting to consider the expediency of petitioning to the Legislature to alter the laws of the Commonwealth, in relation to the Society, read a report; whereupon it was

Voted, To recommend to the Society the adoption of the report.

The report was then recommitted to the same Committee for the purpose of making a few verbal alterations.

A stated meeting of the Counsellors of the Massachusetts Medical Society was held this day, Thursday, June 4th, 1829, at the Society's Room, Pearl street.

The records of the last meeting having been read, it was

Voted, To proceed to the choice of Officers for the ensuing year; and the following gentlemen were then chosen, viz.

James Jackson, m.d. *President.*

Amos Holbrook, m.d. *Vice-President.*

John Dixwell, m.d. *Cor. Secretary.*

George Hayward, m.d. *Rec. Secretary*

Walter Channing, m.d. *Treasurer.*

Enoch Hale Jr. m.d. *Librarian.*

CENSORS FOR THE FIRST DISTRICT, AND FOR THE SOCIETY.

Drs. John Dixwell, Rufus Wyman, Walter Channing, George Hayward, and Enoch Hale, Jr.

FOR THE SECOND DISTRICT.

Drs. John Green, Benjamin F. Heywood, Edward Flint, Charles W. Wilder, and Gustavus D. Peck.

FOR THE THIRD DISTRICT.

Drs. Elihu Dwight, Joseph H. Flint, Daniel Collins, Elisha Mather, and Job Clark.

FOR THE FOURTH DISTRICT.

Drs. Alfred Perry, W. H. Tyler, Lyndon A. Smith, Hubbard Bartlett, and Orrin Wright.

The following gentlemen were then chosen by ballot as Committee of Publication, and Committee on Resignations, viz.

Drs Jacob Bigelow, Geo. Hayward, Enoch Hale, Jr. Committee of Publication.

Drs Walter Channing, John Ware, Z. B. Adams, Committee on Resignations.

Voted, To proceed to the choice of a gentleman to deliver the next Annual Discourse.

Rufus Wyman, M.D. Charlestown, was chosen.

Reports were read from the Censors of the First and Third Districts; none were received from the other two.

The Committee on the List of Books required and recommended, made a report which was accepted; and the list was referred to the Committee of Publication.

Dr Miller, from the Committee appointed at the stated meeting of the Counsellors in June last, to examine into the receipts and expenditures of the Society, with the view of determining whether a reduction could be made in the annual assessment, reported that the accounts of the Treasurer are accurately kept, and that proper vouchers were produced for all the expenditures; and it was further reported, that in the opinion of the Committee the state of the funds will not justify a reduction of the annual assessment.

Voted, To accept the report.

An account of the proceedings of the Essex South District Society for the year past, was then laid before the Counsellors, and ordered to be put on file.

A Committee was appointed to present the petition to the Legislature for an alteration of the law incorporating this Society. This Committee consists of Drs Thurber, Channing and Homans.

Voted, To continue the premium of one dollar a page for such communications of Fellows of the Society as may be deemed by a Committee worthy of publication, provided they do not exceed 250 printed pages annually.

Voted, That all such communications be referred to the Publishing Committee for examination.

Voted, That the Treasurer be authorised to employ an agent to collect the assessments due to the Society, provided that the expense of employing the agent in no case exceed ten per cent.

There being no other business before the Counsellors, it was

Voted, To dissolve the meeting.

The following gentlemen have been elected Fellows during the past year, viz. Drs John Seabury, Chatham; John M. Grosvenor, Methuen; Joshua Studley, Hanover.

The following gentlemen have been admitted in course, viz. Aaron Cornish, M.D. Falmouth; Joshua B. Flint, M.D. Boston; Dr Samuel Alden, Bridgewater; Dr Jonathan Ware, Milton; John Flint, M.D. Boston; J. Greely Stevenson, M.D. do; D. Humphreys Storer, M.D. do; Horatio Adams, M.D. Waltham; Horatio Robinson, M D. Boston.

The following gentlemen have had leave during the year, to resign their Fellowship, viz. John G. Treadwell, M.D. Salem; Wm Spooner, M.D. Boston; John G. Coffin, M.D. do; Dr Enoch Faulkner, Hamilton; John Hart, M.D. South Reading; Dr Joshua Frost, Springfield; Charles W. Winship, M.D. Boston.

LIST OF BOOKS.

ADOPTED JUNE 4, 1829.

In accordance with a Law of the Commonwealth enacted February 10th, 1789, and in obedience to a By-Law of the Society, the Counsellors of the said Society give notice, that candidates for examination before the Censors, must hereafter give evidence of having read and studied the books whose titles are contained in the list which follows, viz.

The Edinburgh System of Anatomy.
Bell's System of Anatomy, or Wistar's Anatomy.
Haller's First Lines of Physiology.
Richerand's Elements of Physiology.
Bichat on Life and Death.
Bichat's General Anatomy translated by Dr. Hayward.
Beclard's Additions to Bichat's General System of Anatomy, translated by Dr. Hayward.
Turner's Elements of Chemistry.
Brande's Manual of Chemistry by Webster.
Pharmacopœia of the United States.
Bigelow's Sequel to the Pharmacœpeia.
Paris' Pharmacologia.
Cooper's Surgery in two volumes.
Boyer's System of Surgery.
Boyer on the Bones.
Hunter's Treatise on the Blood, Inflammation, and Gun Shot Wounds.
Thompson on Inflammation.
Burns' Anatomy of the Gravid Uterus.
Burns' Treatise on Abortion.
Burns' Treatise on Uterine Hemorrhage.
Denman's System of Midwifery.

Denman's Aphorisms.
Dewees' System of Midwifery.
Good's Physiological System of Nosology.
Good's Study of Medicine.
Cullen's First Lines of the Practice of Physic.
G. Fordyce's Dissertations on Fever.
Armstrong's Illustrations of Typhus, &c.
Armstrong on Scarlet Fever, Measles and Pulmonary Consumption.
Sydenham's Works.
Heberden's Commentaries on Diseases.
Dewees on Diseases of Children.
Hunter's Treatise on Lues Venerea.
Baillie's Morbid Anatomy.
Cook's Abridgement of Morgagni on the Seats and Causes of Diseases.
Beck's Medical Jurisprudence.

Although the books mentioned in the foregoing list are all that candidates are required to have read, yet the Counsellors believe that many more may be carefully read during the period of pupilage, and they have therefore prepared another list of books, which they recommend for the perusal of students in medicine.

Books Recommended.

ANATOMY.

Barclay's Anatomical Nomenclature.
Winslow's Anatomy.
Soemmerring's do.
Cheselden's do.
Boyer's do.
Albinus' Anatomical Plates.
Lizars' Anatomical do.
Charles Bell's System of Dissections.
London Dissector.
Shaw's Manual for the Student of Anatomy.
Wilson's Lectures on the Skeleton.
———————————*Vascular System.*

PHYSIOLOGY.

Halleri Elementa Physiologiæ.
Boerhaave's Institutes.
Nouveaux Elemens de la Science de l'Homme, par Barthez.
Blumenbach's Physiology.
Bostock's Physiology.
Mayo's Outlines of Human Physiology.
Broussais' System of Physiology.
Magendie's Physiology, translated by Revere.
Blumenbach's Comparative Anatomy.
Cuvier's do. do.
Fordyce on Digestion.
Hunter on the Animal Economy.
Hewson on the Blood and Lympathics.
Sheldon on the Absorbent System.
Phillip on the Laws of the Vital Functions.
Charles Bell's Natural System of the Nerves.
Bichat on the Membranes.
Ellis on the Effects of Germination, Vegetation, and Respiration on the Air; in two parts.
Parry on the Pulse of the Arteries.

CHEMISTRY.

Davy's Elements of Chemical Philosophy.
Thompson's System of Chemistry.
Black's do.
Murray's System of Chemistry.
Henry's Chemistry, latest Edition.
Lavoisier's Chemistry.
Ure's Chemical Dictionary.

MATERIA MEDICA AND PHARMACY.

Murray's Apparatus Medicaminum.
Thesaurus Medicaminum.
Cullen's Materia Medica.
Pearson's do. do.
Murray's do. do

Bigelow's Medical Botany.
Barton's Vegetable Materia Medica of the United States.

SURGERY.

Pearson's Principles of Surgery.
Cooper's Surgical Dictionary.
Astley Cooper's Lectures on Surgery.
Abernethy's Lectures.
Abernethy's other Pathological Works.
Hey's Practical Observations on Surgery.
Desault's Surgical Works.
Bell's (Charles) Operative Surgery.
Bell's (John) Principles of Surgery.
Richter's Medical Cases in Surgery.
Larry's Military Surgery.
Jones on Hemorrhage.
Home on the Formation of Pus.
Bell's (Benjamin) Surgical Works.
Gibson's Surgery.
Hennen's Military Surgery.
Pharmacopeia Chiurgica.
James on Inflammation.
Travers on Constitutional Irritation.
Brodie on the Joints.
Wilson on the Bones and Joints.
Cooper on Dislocations and Fractures.
Guthrie's Operative Surgery of the Eye.
Vetch on Opthalmia
Ware on the Diseases of the Eye.
Scarpa on the Eye.
Wardrop on the Morbid Anatomy of the Eye.
Saunders on the Eye.
Travers on the Eye.
Adams on the Eye.
Saunders on the Ear.
Hunter on the Teeth.

Fox on the Teeth.
Cooper and Travers' Surgical Essays.
Shaw on Distortions of the Spine.
Cooper (A.) on Hernia.
Lawrence on Ruptures.
Travers on Wounds of the Intestines.
Crowther on White Swellings.
Ford on the Hip Joint.
Cooper on do.
Home on Strictures of the Urethra.
Bell (C.) on Diseases of the do.
Bingham on Diseases of the Bladder.
Wilson on the Urinary and Genital Systems.
Howship on Diseases of the Urinary Organs.
Howship on Diseases of the Lower Intestines.
Copeland on Stricture of the Rectum.
Calvert on the Rectum.

MIDWIFERY.

Smellie's Midwifery.
Burns' Principles of Midwifery.
Ramsbotham's Observations on Midwifery.
Conquest's Outlines of Midwifery.
Davies' Elements of Operative Midwifery.
Merriman on Difficult Parturition.
Rigby on Uterine Hemorrhage.
Douglas on the Evolution of the Fœtus.
White on Lying-in Women.
Gordon on Puerperal Fever.
Hey on do. do.
Butler on do. do.
Armstrong on do. do.
Campbell on do. do.
Clarke on the Diseases of Females.
Dewees on do. do.
Remarks on the Employment of Females in Midwifery.

PATHOLOGY AND THERAPEUTICS.

Celsi Opera.
Van Swieten's Commentaries on Boerhaave.
Conspectus Medicinæ Theoreticæ, auctore Jacobo Gregory.
Cullen's Nosology.
Parry's Elements of Therapeutics, &c.
Chapman's Therapeutics.
Hall on Diagnosis.
Morgagni on the Seats and Causes of Diseases.
Baillie's Morbid Anatomy—with the Plates.
Whytt's Works.
Fothergill's Works.
Rūsh's Works.
Underwood on Diseases of Children.
Cheyne's Essays on Diseases of Children.
Percival's Medical Works.
Kirkland's Medical Surgery.
Zimmerman on Experience in Physic.
Huxham on Fevers and Sore Throat.
R. Jackson on Fevers of Jamaica.
R. Jackson's Outlines of the History and Cure of Fevers.
R. Jackson on Contagious Fever.
R. Jackson on Cold Water.
Currie on Cold Water.
Senac on Intermittent Fever.
Alibert on Intermittent Fever.
Beddoes on the Combination of Fever and Inflammation.
Chisholm on Pestilential Fevers.
Bancroft on Yellow Fever, &c.
Fellowes on the Fever of Andalusia, &c.
Strong on Petechial Fever.
Hale on Spotted Fever, at Gardiner.
Gallup on the Epidemics of Vermont.
Clark on Fevers and Scarlatina.
Hawkins on Rheumatism.

Clark on Hot Climates.
Lind on Hot Climates.
Mosely on Tropical Diseases.
Johnson on Diseases of Hot Climates.
Chalmers on Diseases of South Carolina.
Cleghorn on Diseases of Minorca.
Hillary on Diseases of Barbadoes.
Hunter on Diseases of the Army in Jamaica.
Pringle on Diseases of the Army.
R. Jackson on the Medical Department of Armies.
Lind on Diseases of Seamen.
Lind on the Scurvy.
Blane on Diseases of Seamen.
Trotter's Medicina Nautica.
Blackall on Dropsies.
Portal sur l'Apoplexie.
Cheyne on Apoplexy, Lethargy, &c.
Cook on Nervous Diseases.
Swan on Nervous Diseases.
Hall on Mimoses.
Arnold on Insanity.
Crichton on Mental Derangement.
Pinel on Insanity.
Knight on Insanity.
Cox on Insanity.
Rush on Mental Diseases.
Corvisart on Diseases of the Heart.
Burns on Diseases of the Heart.
Reeder on Diseases of the Heart.
Parry on Syncope Anginosa.
Davis on Carditis.
Maclean on Hydrothorax.
Laennec on Diseases of the Chest, translated by Forbes.
Colin's Manual for the Stethoscope, translated by Ryland.
Baron on Tuberculous Diseases.

Bree on Disordered Respiration.
Young on Consumption.
Stark's (Wm.) Works.
Badham on Bronchitis.
Watt on Chincough.
Peirson on Chincough.
Paris on Diet.
Philip on Indigestion.
Pemberton on Diseases of the Abdominal Viscera.
Ayre on Marasmus.
Johnson on the Liver.
Saunders on the Liver.
Harty on Dysentery.
Hamilton on Purgative Medicines.
Brera on Worms; translated by Coffin.
Rollo on Diabetes.
Marcet on Calculous Disorders.
Adams on Morbid Poisons.
Bateman on Cutaneous Diseases—with plates.
Fisher on Small Pox, Varioloid, &c.
Willan on Cow Pock.
Cross on Cow Pock.
Thompson on Varioloid.
Withering on Scarlatina.
Scudamore on Gout, Rheumatism, and Gravel.
Ring on Gout.
Sutton on Delirium Tremens, Peritonitis, and Gout.
Fowler on Rheumatism.
Haygarth on Rheumatism.
Home's Medical Facts.
Home's Clinical Experiments.
Ferriar's Medical Histories and Reflections.
Bardsley's Medical Reports.
Orfila on Poisons.
Hamilton on Digitalis.

Withering on Foxglove.
Crumpe on Opium.
Fowler on Tobacco.
Fowler on Arsenic.
Robertson on Cantharides.
Haden on Colchicum Autumnale.

MISCELLANEOUS AND PERIODICAL WORKS.

Friend's History of Medicine.
Sprengell's History of Medicine.
Hunter's Introductory Lectures.
Cabanis on the Revolutions in Medical Science.
Hutchinson's Biographia Medica.
Young's Medical Literature.
Gregory on the Duties and Qualifications of a Physician.
Rush's Introductory Lectures.
Percival's Medical Ethics.
Paris' and Fonblanque's Medical Jurisprudence.
J. G. Smith's Forensic Medicine.
J. G. Smith on Medical Evidence.
Edinburgh Medical Essays.
Medical Observations and Inquiries.
Medical Transactions of the College of Physicians of London.
Transactions of the College of Physicians of Philadelphia.
Memoirs of the Medical Society of London.
Memoirs of the Massachusetts Medical Society.
Duncan's Medical Commentaries.
Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge.
Medico-Chirurgical Transactions.
Transactions of the King's and Queen's College of Physicians of Ireland.
Dublin Hospital Reports.
London Medical and Physical Journal.

Edinburgh Medical and Surgical Journal.
American Journal of Medical Science.
North American Medical and Surgical Journal.
New England Journal of Medicine and Surgery.
Medico-Chirurgical Review.*

* The titles of those books which are considered most important for every Medical Student to read, are printed in *Italics;* but there are some books of great value which are not so distinguished, from a consideration of their size, or of the difficulty in procuring them; or because they are principally necessary for persons in particular situations only.

PROCEEDINGS

OF

THE COUNSELLORS

OF THE

Massachusetts Medical Society.

The Committee appointed on the 4th day of October, 1826, to consider a communication from the Medical Societies of Vermont and New Hampshire, and to report to the Counsellors, have attended to the duty assigned them, and respectfully recommend the following answer to said communication: and further, that it be printed and transmitted to the Medical Societies and Medical Institutions in the States of Vermont, New Hampshire, New York, Connecticut and Maine, and to the Medical Institution of Harvard University and the Berkshire Medical Institution in this State.

(Signed) JOHN C. WARREN,
JOHN DIXWELL,
GEORGE HAYWARD, } *Committee.*

THE COUNSELLORS OF THE MASSACHUSETTS MEDICAL SOCIETY TO THE MEDICAL SOCIETIES OF THE STATES OF VERMONT AND NEW HAMPSHIRE,

GREETING:

THE Counsellors of the Massachusetts Medical Society acknowledge the receipt of your letters dated December 15, 1825, and June 6, 1826. The disposition, manifested in these communications, to improve the character of the medical profession in this part of the country, by elevating the standard of admission to practice, is perceived by them with peculiar satisfaction. Occupied as this society and its counsellors have been, for the last twenty five years, in a series of constant and laborious efforts to render our profession respectable and useful; and availing themselves, as they have done, of every circumstance to enforce on candidates the necessity of fully qualifying themselves for the responsible duties of the medical profession, they cannot but regard with deep interest any proposition tending to the accomplishment of objects, in their view, so desirable. The Massachusetts Medical Society have indeed succeeded in establishing a system for their own commonwealth, and have now the gratification of seeing it in full practice. The Medical Institution of Harvard University have done the same. Yet the Counsellors are not desirous of maintain-

ing that their system is perfect; nor would they exclude the consideration of amendments therein; but rather invite and solicit it.

The Counsellors will now take the liberty to apply the experience, the practice of their Society has given, to the proposals contained in your communication, with that frankness which the importance of the subject to the public good and to their own institutions seems to demand.

Proposition 1st.—"Each and every student who may apply for the above purpose, (license to practice) to any county society in this state instead of applying to the Medical Institution for degrees, after the first day of January, 1827, shall bring a certificate, that his preparatory studies are sufficient to his being able to enter the freshman class in either of the colleges in this state, or submit to be examined to this effect, unless he may have the degree of Bachelor of Arts."

On this we remark—That the requirements for admission to the freshman class vary in the different colleges; and are much greater in some, than in others. Of course the proposal in question would not have the effect to produce uniformity in the different states; and without this, all attempts at improvement would probably be fruitless. The Medical Society of Massachusetts have always demanded of their candidates a preliminary knowledge of natural philosophy. This is not included in the preparatory studies alluded to, and is yet of great importance to medical education.

Proposition 2d.—"If any candidate shall have the degree of Bachelor of Arts, he shall be required to have studied three full years with some licensed practitioner, with an absence of not more than six weeks in each year. If such candidate has been only fitted to enter college, he shall have studied four years as above, before he shall be admitted to an examination for a license."

To this the Counsellors of the Massachusetts Medical Society are ready to give their unqualified approbation.

Proposition 3d.—"Each candidate applying as above shall have attended at least one course of public Medical Lectures during his pupilage; shall have arrived at the age of twenty-one years, and shall bring certificates of a good moral character."

The Counsellors of this Society, considering courses of lectures to be indispensable to an adequate knowledge of the medical art, and being aware that students acquire much more information from a second course than from the first, do therefore concur in this third proposal, and in the amendment made by the New Hampshire Medical Society, which substitutes two courses of public medical lectures, in some legally organized and respectable medical school, for one course.

Proposition 4th.—"Certificates of study, of morals, &c. shall be made oath to before some competent civil officer, unless given by some member of a legal Medical Society in this state."

Certificates of study are not admitted by this

Society, excepting from their own fellows; and considering the necessary ignorance which the members of one Society must have of those of another, we believe this regulation to be wholesome, and proper to be continued. Such being the case, the taking an oath appears unnecessary, and we would willingly avoid being instrumental in making this practice more common than it is already.

Proposition 5th.—"Being fully impressed with a view of the necessity of a general reform, this society, with due deference, do hereby recommend to the Medical Institutions in this state, and also, in the neighboring states, that candidates be furnished with degrees of Bachelor of Medicine instead of Doctor of Medicine, after the above period of time; and that degrees of Doctor of Medicine be conferred on those who may merit them seven years after the degree of M. B. may have been granted."

To the recommendation contained in this article, the Counsellors do not feel prepared to agree, for reasons which they will proceed to state:

First. The precedents of this country and of Great Britain, not to go further, are against such a measure. In all the universities distinguished as seminaries of medicine, the practice is established of granting the degree of Doctor, and not Bachelor of Medicine, after three, or at most four years of study. Thus it is at Philadelphia, New York, Baltimore and Boston; thus also it is in Edinburgh, Glasgow and Dublin. It is true that a different practice prevails in Oxford and

Cambridge in England; but it is well known that these have never been distinguished as seminaries of medical learning, and that few medical degrees are applied for in either of them.

Second. The practice of requiring a degree preliminary to that of Doctor of Medicine, is useless. The candidate who has obtained the degree of Bachelor of Medicine, being by this admitted to practice, will usually be indifferent to any further degree; and when established in practice, will rarely be found willing to interrupt the course of it, and subject himself to a new examination. In the instances where the secondary degree should be sought, the candidate would not often vary his course of pursuits with a view to such examination; and of course, his literary attainments would not be materially, if at all, increased by the expectation of it. The most that could be expected, would be a review of elementary studies, and an examination grounded on the expectation of such a review.

Third. The experiment of granting the degree of Bachelor of Medicine has been already tried before our eyes, and has failed. In the earlier years of the Medical Instititution of Harvard University, this system was established; and it appeared not only that the degree of Doctor of Medicine was rarely sought; but even the degree of Bachelor was not often conferred—the candidates choosing some other seminary where the re-

quirements were less complex. Many of the fellows of this Medical Society having been disposed to believe that the check to a full introduction to the Society contained in their laws, is not advantageous, it has been recently proposed to abolish it. Hitherto it has been the custom to require every licentiate to wait three years before being allowed admission to the Society. A committee is now in existence for the purpose of inquiring into the expediency of abrogating this law.

Fourth. The proposed plan would drive those students, whose pecuniary means permitted, to other institutions, in which the degree of Doctor of Medicine could be obtained in a shorter time.

Proposition 6th.—"This society hereby directs their secretaries to correspond with the constituted authorities of the several Medical Institutions and Medical Societies in the states of Vermont, New York, Connecticut, Massachusetts, Rhode-Island, New Hampshire and Maine, and respectfully suggest the propriety of their adopting, simultaneously, regulations similar to the above for the benefit of community and the reputation of the profession; and they are further directed to accompany these ordinances with such explanations and arguments as the nature of the subject may seem to require."

Proposition 7th.—"In case the above propositions shall be rejected by the constituted authorities of the several Medical Institutions and societies as above, then these ordinances are to be rescinded and not obligatory on the Medical Societies in this state, but if adopted to be strictly observed."

To these the Counsellors are ready to give their assent. They consider it to be not improbable, however, that measures similar to those pro-

posed, may be adopted by them, whether they are generally adopted or not.

The Counsellors are perfectly aware, that changes in the requirements of candidates are attended with great inconvenience, and ought to be made slowly and circumspectly. Their own system is well established, and has been found to answer the purpose of its formation; but notwithstanding these considerations, they are willing to modify it, should it be found necessary to do so, for the purpose of forming a system of general application.

The Counsellors have considered themselves bound to give you information, as soon as possible, of the state of opinion among them, in regard to the proposed changes. At the same time, they would have it understood, that they have no power to alter the laws of their Society; this can be done only at a general assembly of the Society at its annual meeting.

In order that you may be more fully informed of the system established among us, we take the liberty of sending you a copy of our By-Laws, and also a copy of the Statutes of the Medical Institution of Harvard University; some of which we think might be incorporated into the proposed improvements; particularly that which requires every candidate to write a dissertation on some medical topic.

But it is obvious that the various societies and

institutions invited to concur in the proposed regulations, being governed by their peculiar laws and habits, will take different views of any system which may be presented them; and hence, they will no doubt reject some propositions made, and advance others of their own. Now, according to the proposal of the Vermont Society, the whole system is to be relinquished, if not adopted by the constituted authorities of the several Medical Societies and Institutions in the States named above; therefore, it is proposed by this body—

That a Convention of Delegates be held in some central place, for the purpose of agreeing on a uniform system of instruction and examination of students of medicine. That this convention be composed of one delegate from each of the Medical Societies and Medical Institutions of all the States named in the Vermont circular; and of such other States as may he disposed to unite therein. That the meeting for this purpose be held at Northampton, in the State of Massachusetts, on the second Wednesday in May, 1827, at 10 o'clock, A. M., or at such other time and place as may be judged expedient. That if a system of instruction and examination should be agreed on, the same shall be submitted to the different societies and institutions by their respective delegates, and each society and institution shall be at liberty to accept or reject it; and if the greater number of institutions and socie-

ties adopt the same, it shall go into operation. It being understood that those who adopt the system receive the benefits expected to arise from a reciprocity in the reception of practitioners, graduated or licensed at any of the several so cieties and institutions included in this arrangement; and that those who do not adopt it are deprived of those benefits. Further, that the expense of the attendance of each delegate be defrayed by the society or institution by which he may be elected; and that, should the Medical Society of Vermont adopt the proposal for a convention, they be requested to issue notices to the several Medical Institutions and Societies in the States abovementioned, inviting them to choose delegates for the convention, at the time and place aforesaid, or to fix some other time and place, if it should be found expedient.

AT a Special Meeting of the COUNSELLORS of the MASSACHUSETTS MEDICAL SOCIETY, held at the Medical College, Mason Street, November 7th, 1826—

THE Committee to whom was referred, at the last meeting, the Circular Letter from the Medical Society of Vermont, made a report, which, having been read and discussed by sections, was unanimously accepted.

A true copy from the Records....Attest,

GEO. HAYWARD, *Rec. Secretary.*

BOSTON, Nov. 27th, 1826.

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